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ART. I.—*Notes on Medical Matters and Medical Men in Paris.* By DAVID W. YANDELL, M.D., of Louisville, Ky.

I had the pleasure in a former letter of giving you an extract from the memoir of Dr. Nélaton, on the very interesting subject of *Cancer of the Bones;* the whole of the memoir has since appeared in the Annual of Surgery and Medicine, and is so new and valuable that I have translated it for the Journal, a task the more readily undertaken for knowing the very high estimation in which the author is held by his brethren. I have only to regret that he cannot be allowed to speak to your readers in his own language, in which he would appear, I doubt not, to far more advantage than I shall be able to exhibit him in an English garb.

Memoir on Cancer of the Bones. By Dr. NÉLATON, Professor to the Faculty of Medicine of Paris.—We find can-

cer of the bones, generally designated *osteo-sarcoma*, described, by the authors of the last century, as J. L. Petit, Duverney, and Heister, who continually confound it with caries and exostosis, under the name of *carnification des os.* Among modern writers, Sir A Cooper, under the title of *fungous exostosis* of the medullary membrane, described one of the varieties of cancerous degeneration of the bones, and although Boyer has written of laminated cellular exostosis, it does not prevent him from afterwards devoting a chapter to osteo-sarcoma, affections between which one in vain endeavors to detect differences which in reality do not exist. In a third article, where he treats of spina ventosa of adults, the same writer describes one of the forms of cancer of the bones. It is easy to perceive that different names given to the same disease must create doubt and uncertainty in the mind of the reader. Cancer, it is true, does not always produce the same disorders in the bones, or to speak more accurately, does not always manifest itself by the same symptoms; nevertheless we are bound to acknowledge that in spite of these differences, the essential characters of the disease do not vary, and that the stamp of cancerous affections is constantly present. The different forms which it offers should be united under the same general title; this work will thus comprehend the history of cellular exostosis, spina ventosa of adults, and osteo-sarcoma.

Cancer is developed sometimes primitively in the osseous tissues; at other times again this tissue is attacked consecutively, in consequence of the propagation of a degeneration which originally commenced in the neighboring soft parts.

Anatomy and Physiological Pathology.—We have already remarked that cancer of the bones presents itself under different forms, which may be reduced to four:

First form. We find in the interior of the osseous tissue the nuclei of the cancerous growth forming round patches contained in excavations which they exactly fill; the tissue of the bone has completely disappeared in the points invaded by the accidental substance, and is replaced by the cancerous mat-

ter; there is a loss of osseous substance similar to that produced by a cutting punch; this destruction observed equally in the compact and spongy portion is sometimes seen on the bones of the cranium, on the sternum and ribs, and on the diaphyses of the femur and humerus. In the neighborhood of this loss of substance the bone appears to have suffered no alteration, and but little more vascularity is produced than is consistent with the healthy state. In the beginning the cancerous nucleus preserves exactly the form of the portion of bone which has disappeared; and it seems that the progress of the degeneration is limited by the periosteum; at a more advanced period, however, the cancerous matter increases in development, and forms a more or less considerable prominence on the surface of the altered bone. But if the seat of the accidental production be a long bone and correspond to its diaphysis, as the medullary membrane does not offer the same obstacles to its growth as the periosteum, it is not uncommon to see the cancerous mass extend towards the medullary canal in which it propagates itself with rapidity, and thus forms in its interior a plug or stopper, which extends much higher than the tumor which projects from the surface of the bone would lead one to suppose — a disposition, I need hardly remark, which it is extremely important to bear in mind when it is decided to amputate the limb in this variety of the affection.

Second form. In this division the tissue of the bone has undergone a profound alteration and presents a tumor, generally voluminous, a section of which exposes a great number of cells, very irregular in form and dimensions, filled by cancerous matter in various stages of softening; there seems to be a considerable diminution of the osseous tissue in the cells of which the cancerous substance is deposited. This variety is met with particularly on the epiphysis of the long bones; the tumor increases not unfrequently very slowly, and often acquires considerable size. This is the form in which tumors weighing twenty, thirty, and even fifty pounds have been

found, and is the affection which has been more especially described in standard treatises as *osteo-sarcoma.*

Third form. In this the cancerous mass, commencing in the interior of the bone, gradually increases, but instead of destroying the osseous tissue, as is the case in the first form, instead of producing a cellular structure, as in the second, it presses it eccentrically, causing it to yield in a slow and gradual manner, and ends by presenting a very thin and friable shell, in the interior of which the cancerous matter is contained. This is the *spina ventosa* of authors. This species of cancer, more rare than the preceding, is confined almost exclusively to the long bones of the extremities, although it has been occasionally observed on the inferior and superior maxillary bones. When the tumor has acquired sufficient volume, the osseous shell becomes perforated, the tumor escapes by the perforation, approaches the surface of the body, and ultimately progresses like the other varieties.

Fourth form. The tumor is applied to the exterior of the bone and covered by the periosteum, but it is very easy to perceive that the osseous tissue is itself altered, in fact, a collection of excessively fine, flexible osseous prolongations similar to hair implanted on the surface of the bone are observed, which are often three or four centimeters in length, placed one against the other so as to represent a bundle, not unlike the wick of a candle, in the intervals and on the surface of which the cancerous matter is deposited. This disposition, more rare than the foregoing, has been frequently observed upon the iliac bones. At the moment I am writing this, there is before me a femur which affords a very striking example of this variety. This tumor, which possessed considerable size before maceration, envelops the whole inferior third of the bone, and is covered with osseous points three or four centimeters (about an inch) in length.

Such are the different forms assumed by cancer of the bones. Well marked differences, it will be perceived, exist between them, while at the same time no one is deficient in the characters proper to cancerous affections. Thus, what-

ever may be its first form, the tumor constantly increases, softens, ulcerates, is reproduced almost always after removal, and terminates by inducing the cancerous cachexia.

An important remark to be made in relation to the development of these tumors is, that they never affect the cartilaginous tissues; for example, when the cancer commences near the articular extremity of the bone, the diarthrodial cartilage is found untouched, notwithstanding the complete degeneration of the epiphysis which supported it. This immunity of the diarthrodial cartilage renders the propagation of the cancer into the articular cavity of very rare occurrence; still it does sometimes happen, and the following is the process by which it is effected: The cancerous matter being arrested in its course by the cartilaginous lamina increases laterally, until it arrives at a point where the osseous tissue is covered only by periosteum and synovial membrane; these two tissues are soon attacked by cancer; the tumor advances into the interior of the articular capsule, which it distends in a manner similar in certain cases to that observed in effusion of liquids. I have shown this year to the Society of Surgery an extremely fine example of this propagation of a cancer of the femur into the articulation of the knee. In this case the accidental production was introduced into the articulation by the space which separates the two condyles of the femur.

Until now I have adhered to the somewhat vague designation of cancerous tissue, reserving for myself an explanation upon this point; in an immense majority of cases it is the *encephaloid* tissue in various degrees of development, that is observed in the bones. Sometimes it shows itself under the form of quite fine white or rose colored and slightly vascular masses, at others forming an extremely soft, almost diffluent tumor, traversed by a great number of vessels, presenting occasionally in its interior sanguine collections and fibrinous clots more or less altered.

In a few rarer cases it is the *colloid* tissue which constitutes the morbid mass; still it is more frequently allied to the encephaloid tissue. It is not uncommon, particularly in

the second form of the disease described, to see in the same tumor these two tissues in different stages of development, besides which, true cysts containing a serous or sero-sanguinolent fluid are often found.

Finally, melanosis has been encountered in the bones, but always, so far at least as I am informed, in a state of infiltration. Strictly speaking, this would constitute a fifth variety of cancer of the bones; but it has never attracted the attention of surgeons, since it in no way modifies the texture of the bone, and does not manifest itself by any characteristic symptom. It is proper to remark that the scirrhous tissue which is frequently found in other parts of the body never shows itself in the bones, at least I am not aware that the presence of this accidental tissue in these parts has ever been clearly established by observation. In certain cases the encephaloid tissue has been found, according to some authors, mixed, so to speak, with an erectile tissue, which would offer a combination of two morbid tissues.

Symptomatology. Although the four different forms of cancer now described do not present a series of symptoms precisely similar, we believe it preferable to exhibit collectively the symptomatology of the various forms, seeing that they possess a great number of points in common, and that a special description of each would lead us into unnecessary repetitions, adding that the reader, in recalling what we have said in the preceding paragraph upon the anatomy and the physiological pathology, must easily recognise in the exposition the characters which belong to each variety.

Some patients experience at the beginning of the affection, for a longer or shorter time, pretty vivid but passing pains, which recur sometimes spontaneously, at other times supervene after fatigue or sudden movements; still nothing is revealed on an examination of the painful part; but after a certain time a tumor begins to show itself. In other patients, on the contrary, the tumor appears without having been preceded by pains; it is indolent and scarcely attracts the atten-

tion of the patient, but in either case it increases, sometimes slowly, sometimes with frightful rapidity.

When the tumor is of small volume, the skin which covers it preserves its normal aspect, and from its transparency only allows to be seen certain flexuous and dilated veins; but if the cancerous mass has attained great size, the skin is distended, glossy, bright and attenuated; it is then especially that the subcutaneous veins assume the form of sinuous, fine lines, which give the finger on exploration the sensation of grooves more or less deeply excavated on the surface of the tumor. This presents, in certain instances, a softness which suggests the idea of a collection of liquid, while at other times it is hard, and offers an osseous resistance. Its surface, at first quite regularly round, loses its form; prominent and soft nipples are here and there remarked, while others are more firm and resisting under the finger. Between these various portions are occasionally observed harder points, formed by the osseous enclosure or partitions which divide the tumor into numerous segments.

In the second form of cancer of the bone described, in which the tumor occupies the whole circumference of the bone, an exceedingly curious phenomenon, and one which possesses a certain importance in the diagnosis, is observed: The tumor, formed by a great number of osseous cells, increases in a lateral direction especially, but at the same time is developed in a line parallel with the axis of the bone; the result of which is that the two extremities gradually separate, and the whole of the bone undergoes a true lengthening, which in some instances has been as great as five or six centimetres.

If endeavors are made to move the tumor, it is perceived that the motions are transmitted to the subjacent bone, which seems to constitute a part of the tumor. In some cases a deformity and swelling of the bone at the point where it unites to the base of the tumor, may be recognised by the touch. In certain other cases a peculiar sensation is imparted to the touch, which has been compared to the rumpling of dry parchment or the crushing of an eggshell; this sign belongs

especially to the third form of which we have spoken, though it may also present itself in the second, when pressure has been exercised on one of the fragile partitions which we have described; and it may possibly be met with even in the first form, when an extremely delicate lamella still covers the cancerous nucleus developed in the interior of the bone. This sign can be by no means always perceived; and it is worthy of mention that after this crepitation has been elicited a certain number of times, it can no longer be produced until at the end of some twelve or twenty-four hours, when it may be detected anew.

Other tumors, quite rare, it is true, offer beats synchronous with the arterial pulsations—beats which do not consist in a simple rising, but in a true expansive movement of the parts, as is met with in aneurismal tumors. The ear applied to the diseased region perceives frequently in this case a *bruit de souffle* more or less marked, but still, ordinarily, not nearly as distinct as that of aneurismal tumors. The patients experience lancinating pains in the tumors, which are often more severe in the night than day, and might suggest the idea of a syphilitic cause, if it were not known that this is a character proper to the greater part of organic affections of the osseous tissue. Some patients nevertheless feel no pain, and are, so to speak, troubled only by the enormous volume of the limb; while it is a matter of surprise to how great an extent the subjects of these tumors retain the power of moving the joints contiguous to the diseased part. It is easy to understand how the bones, profoundly altered by the cancer, should break in certain cases with extreme facility; in fact, a sudden movement or even an inconsiderable strain is sometimes sufficient to fracture the most resisting bones—the femur, for example; and the prognosis should always be grave under such circumstances, for the fractures do not ordinarily unite.

Independently of the symptoms proper to the tumor—symptoms manifested, no matter in what part it may be situated—others are observed, which depend upon the compression of the neighboring organs. These symptoms of neighborhood,

as they are called by M. Gerdy, vary according to the seat of the tumor; thus there will sometimes be an œdema dependent on compression of the principal venous trunks; at others, neuralgic pains, arising either from distension or compression of certain nervous filaments; in fine, the most varied functional troubles, such as dyspnœa, dysphagia, retention of urine, etc., may be manifested as the trachea, œsophagus or urethra may be displaced or compressed by the tumor developed in their neighborhood. In certain cases these symptoms alone suffice to jeopard life; but in cases where the tumor does not embarrass the functions of any organ indispensable to life, it continues to be developed, and presents the whole series of phenomena belonging to cancerous affections; thus ulceration, hemorrhages and the cancerous cachexia supervene, and finally death occurs. When the tumor is of any great volume, as is observed frequently in the second form described, it is not uncommon to see these phenomena occur and succeed each other with frightful rapidity, although the tumor may have increased up to this point with extreme slowness. The steps by which it is effected are these: The skin, which was violently distended, is attacked by erysipelas; one or more gangrenous patches appear on different points of the tumor; these become detached and lay bare the softened cancerous tissue; an ichorous liquid flows from the surface of the ulcerated parts; finally the patient succumbs, exhausted by the pains and losses which he every day experiences.

Diagnosis.—When there does not yet exist any tumor appreciable to the eye or touch, the pains which accompany the development of the cancer may be taken for those of rheumatism or syphilis; nor is it difficult to perceive how such a mistake might occur, since cancer of the bones is an affection rarely met with, while rheumatism and syphilitic diseases are extremely common. The latter will naturally first suggest themselves to the mind of the physician. This error may be avoided by considering that rheumatic pains are generally erratic, that they cease for several weeks and even months, to reappear and continue uninterruptedly for several days; while

the pains proper to cancer show themselves constantly in the same point, and do not, like the preceding, reappear under the form of paroxysms. As to the pains in the bones incident to syphilis in certain forms, their exacerbation, produced either by the heat of the bed or pressure of the fingers, the anterior existence of syphilis, and the influence of an antivenereal treatment, will generally lead to their recognition.

When the tumor begins to show itself, it may be taken for a periostosis; but this is accompanied and has usually been preceded by characteristic pains, and, moreover, promptly yields to the proper treatment.

When the tumor has attained greater size, it may be confounded with either an exostosis, a cyst developed in the osseous tissue, an aneurism, or, finally, with those pulsating tumors described under the name of aneurism of the bones. But it is especially osteo-cartilaginous exostosis that is apt to be confounded with cancer. A considerable degree of hardness, the absence of pains, and an extremely slow march, render the existence of an exostosis very probable; whereas the circumstances the opposite of these would lead one to infer the presence of a cancer. But we must confess that the diagnosis will often present, in such a case as this, an uncertainty which can only be dissipated by a prolonged attention to the progress of the disease.

There is a striking resemblance between cysts developed in the osseous tissue and the third form of cancer described; in the two cases the laminæ of the osseous tissue are crowded together, thinned, and afford to the finger on pressure a crepitation; and an explorative puncture is the only means of resolving the doubt. If the records of science did not contain a great number of cases in which we see cancerous tumors have been mistaken for aneurisms, one could scarcely conceive how such errors could be committed. Nevertheless it ceases to be a matter of surprise, when it is remembered that certain cancers of the bones present pulsations synchronous with those of the arteries, and offer also a *bruit de souffle*. But it is necessary to remark that these tumors present these two phe-

nomena only at a period when the accidental tissue has become exceedingly vascular—that is to say, at an advanced stage of its development—while the pulsations in aneurism are perceived from its beginning. It is here proper to recall that circumstance, quite rare, it is true, of which we have spoken in the pathological anatomy of this affection, viz., the lengthening of the bone witnessed in some examples of cancer, and which is never seen in any case of aneurism.

Every cancer of the bones is an extremely grave affection; but the danger varies according to its seat, its degree of development, and its progress, which, in the second and third forms, is much slower than in the remaining two. Often, in the latter case, there exists but a single tumor, well limited by an osseous envelop, which circumstance may facilitate the removal of the degenerated bone; whereas in the first, on the contrary, there generally exist multiplied nuclei, a condition which renders all treatment comparatively hopeless.

Treatment.—This is divided into curative and palliative. The first consists in complete removal of the tumor; to render which operation practicable, certain local conditions are indispensable: 1st, we must be able to determine with exactitude the extent of the tumor and its connections with the neighboring organs; 2d, that the soft parts are sound to an extent which allows the formation of flaps sufficient to cover the wound succeeding the removal of the degenerated bone.

When the tumor is situated on one of the limbs, amputation or disarticulation is to be resorted to—some writers esteeming the latter preferable, because it is not liable, as amputation is, to the objection that it may leave a cancerous prolongation in the medullary canal above the point of section. But this otherwise judicious observation is applicable only to the first form of the disease; and even in this variety it is not wise, in anticipation of a danger which after all may not exist, uselessly to sacrifice a considerable portion of a member, and thus render the operation much more serious. It is generally sufficient to amputate two or three inches above the tumor, immediately removing another portion of the bone if it is as-

certained that the cancer has propagated itself in the medullary canal to the point of the first section.

At other times, when the bone affected is of small dimensions, it is extirpated entire; it is in such instances that the bones of the metacarpus, metatarsus, and even the clavicle have been repeatedly disarticulated with success. Finally, in certain cases, one may confine himself to an exsection of the altered portion of the bone, an operation which has been practised a great number of times with success in the inferior and superior maxillary bones.

If the situation or the volume of the tumor prevents a complete removal, a palliative treatment is alone applicable. The patient should avoid with the greatest care every cause likely to induce a rapid progress in his affection, such as the use of topical irritants with the view of obtaining resolution; he should abstain even from every local application, at least while there are no acute pains. When these affect the patient, simple cataplasms sprinkled with opium afford more relief than anything else. If this is not sufficient, unguents containing the extract of opium or belladonna, or the salts of morphine, applied by the endermic method, may sometimes be advantageously employed. The narcotic preparations ought to be given internally also; but it is proper to add, that these remedies soon lose their power to calm the pain, and that it is necessary to change them often or to increase the size of the dose.

The following article will be found to be one of unusual interest. It has been sought after by the Paris physicians with the greatest avidity, and is here esteemed one of singular ability. It is entitled—

Clinical Researches concerning Phlebitis, especially that called Spontaneous Phlebitis. By C. Forget, Professor of Clinical Medicine of the Faculty of Strasbourg.—Phlebitis is a disease that has been known only a short time, and which notwithstanding the numerous investigations to which it has already given rise still presents a great number of problems

that are unresolved. It would even seem that science has retrograded on this subject, for various points in the history of phlebitis that not long ago were admitted to be substantiated, are again made matters of discussion. Thus, the formation of a sanguine clot as a necessary phenomenon of phlebitis is contested; as also, that this clot should be considered as the cause and not rather the effect of the disease; and a dispute has arisen as to the reality of the transmission of pus into the circulatory channels. My object is not to reply to these questions, but I shall confine myself simply to those upon which I believe I may throw some light, and which appear to me to have some importance in a practical point of view.

Phlebitis has been divided into suppurative and non-suppurative, adhesive and non-adhesive, traumatic and spontaneous, etc. Although these various denominations are said to be based on fundamental differences between the species, in our opinion they are but accidents of the same affection, and express nothing; still they possess a certain practical utility; and it is the last form, I think, which offers the greatest interest, if the power, that we believe may sometimes be attributed to the contact of the air, be admitted as real. We shall treat separately in this essay of traumatic and spontaneous phlebitis.

1. *Traumatic Phlebitis.*—Previous to the works of modern writers on inflammation of the veins, the inflammatory accidents following traumatic lesions, bloody operations, and particularly venesection, were attributed to anything else than to phlebitis and purulent infection; but since then every local inflammation supervening after bleeding has been considered as almost always due to a phlebitis, and every phlebitis has been regarded as almost always necessarily mortal. The first of these opinions is an error in diagnosis that the instructed practitioner knows how to avoid; the second is an exaggeration suggested by the terrors that purulent infection may well inspire, against which opinion, however, there is a large array of facts, to which we desire to add our modest

share. The first of these questions scarcely meriting a serious examination, we will pass rapidly over it.

1st. *The inflammations which result from the operation of venesection are not always phlebitis.* And, in fact, among nine cases of grave inflammatory accidents observed by ourselves after phlebotomy, in three these accidents have consisted of simple phlegmons.

Case I.—In a man affected with albuminuria, a bleeding at the arm was followed by an intense phlegmon, of which the repeated application of leeches and topical emollients and sedatives procured the resolution in the space of a few days.

Case II.—Venesection practised in a woman laboring under pneumonia was followed by the development of a grave phlegmon at the bend of the arm, which, notwithstanding antiphlogistics were extensively applied, terminated by suppuration. Incisions suitably made gave issue to pus, and recovery took place without any general accidents, five weeks after the appearance of the phlegmon.

Case III.—Bleeding at the arm in a man 68 years old, suffering from bronchitis, gave rise to a diffuse phlegmon, which, despite the rational treatment, passed to gangrene and was followed by death. The autopsy afforded no evidence either of phlebitis or purulent infection.

In the first of these cases, the phlegmon terminated in resolution; in the second, in suppuration; in the third, in gangrene, and neither during the life of the patient nor after his death were we able to detect any symptom of phlebitis. Thus in nine cases of grave accidents following venesection there were three, or one-third, in which phlebitis was not present. I say *grave* accidents, for in respect to these cases there are numbers of others with which the practitioner daily meets, where a little redness, tumefaction, and even suppuration are found at the place of bleeding, which yield to the most simple means, causing neither the physician nor patient the slightest uneasiness.

2. *The phlebitis which results from venesection is not followed by fatal accidents as often as is believed.* We might

cite a large number of cases drawn from our own practice in particular and that of our associates, but we wish to refer only to those observed publicly, and collected, as are all those comprised in this essay, at the clinics of the faculty. These last also number three, but we content ourselves with reporting one which resembles the others *sicut ovum ovo.*

Case IV.—In a man aged 38 years, affected with an intense bronchitis, venesection produced an inflammatory swelling at the bend of the arm. On examination of the part an indurated cord was discovered, painful on pressure, rose colored superficially, knotty, occupying the median cephalic, and extending about five centimeters from the incision towards the cephalic which participated in the inflammation. The mouth of the wound is gaping and grayish; pressure made from above downwards on the venous cord gives issue to a puriform liquid. Repeated applications of leeches made above the disease, according to the directions of Lisfranc, emollient cataplasms, sedatives, and afterwards mercurial unctions, produced in the course of ten or fifteen days the resolution of this localised and probably adhesive phlebitis.

Thus, of six cases of phlebitis, three terminated by resolution. I have myself been attacked with a phlebitis resembling the preceding, being much more mild however, although it gave me great uneasiness, for the fate of the unfortunate Maréchal, whom we knew, who perished a victim to the disease that he was amongst the first so well to describe, was in my memory.

As to recovery from phlebitis supervening at the period of purulent infection, it is fortunate that all practitioners do not encounter it, and I confess, for my own part, that I have never either obtained or observed it. I call this result fortunate, for I am convinced that nature has more to do in these very rare recoveries than our remedies, whatever they may be.

We omit the report of the three cases where traumatic phlebitis passed through all its accustomed phases from the period of purulent infection until death; they offer nothing of

particular interest, and it is not with fatal phlebitis that we are occupied. But to speak of the phlebitis occasioned by phlebotomy, I should mention two other cases where purulent infection resulted, in one, from the operation of laryngotomy, and the other, (a remarkable and important circumstance) from simple scarification in a case of anasarca.

But I leave the history of these traumatic accidents that possess nothing new to the reader—except the bearing of some facts, too few certainly, but which may lead to the rudiment of an opinion or presumption in regard to the relative frequency of the various accidents that sometimes follow venesection, and the terminations of the phlebitis that may arise from this operation,—for a subject more novel if not more important; that is, the history of the phlebitis called spontaneous, in opposition to that which results from wounds.

II. *Spontaneous phlebitis, and its mildness attributed to the absence of the contact of the air.* The term *spontaneous* applied to any malady whatever, is a conventional term, expressing that the cause of the disease is unknown; for every morbid phenomenon must have a cause consisting in a modification of the elements of the organism.

During some years past numerous cases of spontaneous phlebitis have occurred among our patients. In none of these, that we now remember, in none, we repeat, have suppuration or accidents from absorption manifested themselves. We have asked ourselves *if the absence of the contact of air* was not the cause of this benignity of the spontaneous and subcutaneous phlebitis unattended by division of the skin. We have always, as now, believed ourselves authorised to consider this kind of affection as mild, compared to that where the inflamed vein is uncovered. This is what I published in 1842, in the summary of the Medical Clinique of the Faculty of Strasbourg. These remarks thrown in a report were passed unnoticed, as do the majority of things produced in the Provinces, and it was with great satisfaction that, three years after, I recognized in a memoir of Dr. Bou-

chat, published in the Gazette Médicale, of Paris, (April, 1845,) several of these ideas, developed and conveyed in analogous terms. From the fifty-one cases collected, obtained from authors and observed by himself, our *confrere* concludes that spontaneous phlebitis, which he prefers designating as "*phlegmasia alba dolens non-puerperale*," never terminates by suppuration; that it is never followed by accidents of absorption; that of itself it is not a grave affection, and does not of necessity require energetic treatment.

M. Bouchat has wished to ascertain the cause of those phenomena which, according to him, separate this affection from traumatic phlebitis, "and which should prevent the slightest connection being established between them." Upon the latter point we cannot agree with him; first, because we cannot see the essential differences that separate the two affections; second, because it appears in some cases, rare, we will admit, that spontaneous phlebitis does terminate in suppuration.

To return to the formal cause, the author admits that in spontaneous phlebitis complicating chronic affections, which is that most frequently seen, the coagulation of the blood is the primitive fact; that the cause of this coagulation of the blood resides in the relative excess of the fibrine of this fluid; finally, that this phlebitis is produced only secondarily to this coagulation. These opinions have been adopted by the learned author of the *Compendium de Médicine*, article *Phlebite*. For ourselves, we can only see in these propositions hypotheses which do not appear sufficient to sustain the discussion. How, in fact, can we conceive of this spontaneous coagulation of the blood, especially when it occurs in cases where the plasticity of the blood is, according to these authors, diminished, as in typhoid fever? Why does the blood coagulate in certain vessels sooner than in others? If the plasticity of the blood is the real cause of this coagulation, why does it not rather show itself in the acute phlegmasia—in rheumatism, for example, where the fibrin of the blood is, as they again declare, at its maximum quantity? How is it possible to explain this coagulation thus localized, if it is not by a local cause itself? But is it asked,

what is the cause of this phlebitis? It is, we reply, that which produces so many phlegmasias, whose cause is unknown to us, and which shows itself so frequently in valetudinarians; such are erysipelas, stomatitis, enteritis, and the pneumonias called ultimate. How demonstrate that phlebitis is consecutive to the coagulation of the blood, when the pain of the limb is, according to the testimony of all observers, the first phenomenon observed? Why credit an exception so opposed to the general rule, that the coagulation of the blood may be the consequence of an alteration of the vessel? Even admitting that phlebitis may be consecutive to the coagulation, is it the less a phlebitis, and does an inflammation change its nature from being secondary?

Such are the reflections that occurred to me while reading the essay of our *confrère*, and I was not convinced either by this absence of the clot in the first periods of the disease, or by the absence of redness of the venous parietes, already signalized by Cruveilhier, who has done most for the history of phlebitis—an absence of redness which is explained in the majority of cases by the period at which the affected part is most frequently observed, that is to say, after the resolution of the phlegmasia, when the obliteration of the vessel is the only remaining vestige of the phlebitis. I persist in considering the thickening, the hardening of the walls of the veins, coincident with the pain and other acute phenomena, as the inflammatory characters; and instead of having recourse to the sanguine diathesis so problematical in its effects if not in its essence, I believe it my duty to adhere to the etiology that I announced in 1842.

Agreeably to my opinion then expressed, the termination by adhesion and the slight danger of spontaneous phlebitis do not depend upon its being secondary, which, I repeat, implies nothing as to the gravity of the disease; these effects appear to me to arise much more probably from the fact that this primitive phlebitis is protected from the air. I am supported in this, firstly, from the simple observation of facts, which teaches us that concealed phlebitis is mild, while open phlebitis is grave in its character; secondly, from every day's experience, which

demonstrates the unpleasant effects of the contact of the air with inflamed, and especially suppurating surfaces; thirdly, from those other observations, borrowed from modern surgery, which so clearly establish the advantages of light dressings and immediate reunions; fourthly, and especially, the remarkable results obtained from the surgical practice called subcutaneous. Although we believe we have on our side both direct observation and every analogy, to M. Bouchat belongs the merit of having performed a remarkable labor, and of having lucidly established the coincidence of adhesive phlebitis with chronic affections, which is the principal object of his memoir. I should have kept all these considerations to myself, if a most interesting case, which recently presented itself at my clinic, had not afforded me the opportunity of expressing the opinions which I entertain on this subject, at the same time that I gave that publicity to the case which it deserved.

Among the great number of chronic affections of every variety that have occurred at the clinic of the faculty of Strasbourg during the last eleven years, I have observed only four times in a very manifest manner the complication of spontaneous phlebitis. Of these four examples. there is one of which I have a very imperfect recollection, and of which I cannot find the report among so many others. Another of these facts relates to a phthisical patient, who had varices of the legs, which inflamed during the march of the disease, then passed to resolution, which prevented our wish to establish at the autopsy the state of the previously inflamed veins. We proceed to report the other two cases *in extenso*, which we the more readily undertake, as they are the first and last that we have witnessed:

Spontaneous Phlebitis, Terminating in Resolution, in a Phthisical Woman; Death; Necroscopy.

Case V.—A semstress, aged 35 years, entered the clinic on the 18th of August, 1837, having been sick five months. For three months her menses have not appeared. At her entry she had a cough, flocculent expectoration, febrile pulse, dull-

ness, mucous *rales*, cavernous *souffle*, pectoriloquy at the summit of the right lung, night sweats; besides which, she complains of very acute pain in the calf of the left leg, which presents nothing worthy of note except sensibility to pressure.—Gum tisane, decoction of wild cherry-tree bark; ten leeches and emollient cataplasms to the calf of the leg.

For some days following the patient was affected with indigestion from which a diarrhœa resulted. Twelve leeches to the anus, emollients, diet. The fever presented quotidian exacerbations, to arrest which, sulphate of quinine was administered; but the fever persisting and the pulmonary symptoms becoming aggravated, the quinine was suspended. Sixteen leeches under the clavicles, emollients.

The 2d of September, fifteen days after her admission, the pain in the calf continues uninterruptedly; upon the course of the external saphena an unequal and painful cord is discovered; the lower part of the leg is occupied by a slight and resisting engorgement. We recognise phlebitis. Fifteen leeches to the calf, emollient cataplasms.

The following days the pain extended to the thigh. Twelve leeches.

September 8th, the knotty cord of the leg can be felt in the bend of the knee; same pectoral symptoms, continued fever. Fifteen leeches to the popliteal region, blister to the arm, emollients, opium.

Towards the end of the month, the venous cord still remains, notwithstanding repeated local bleedings, but it is less painful; the œdema of the leg is always slight. Early in October the thoracic symptoms grew worse, dyspnœa increasing, frequent cough, emaciation, hectic fever. Small bleeding at the arm, emollients, opium, diet.

The chest absorbs the attention; we no longer occupied ourselves with the leg, in which the patient complains of no more pain. The phthisis made rapid progress, and the patient died on the 26th of October, a little more than two months after her admission into the hospital.

At the autopsy, the lungs were found hollow, with mem-

branous caverns. In the other organs there was no particular lesion; no vestige of purulent absorption.

Examination of the veins of the left inferior extremity.—Very light œdema of the leg. The femoral vein presented a perceptible thickening of its parietes; it is obliterated by a consistent and ancient fibrinous clot, which extends above from the external iliac vein downwards in the popliteal and external saphenas to the base of the calf.

One may judge by the activity of our treatment of this spontaneous phlebitis how serious were the apprehensions we entertained; we were indeed alarmed by the dangers which, according to authors, accompany phlebitis, and we are disposed to attribute the resolution to the treatment which we pursued. The pain in the calf, it will be remarked, which was the first symptom of the disease, is observed in the majority of cases of this kind. The œdema was slight compared with what it ordinarily is. There is no doubt in our mind that this was a primitive phlebitis. The two cases previously mentioned in this memoir occurred subsequent to this. The disease assumed the same character of initial pain; the œdema was also slight. In one of them, I have remarked, the phlebitis seized veins already varicose, a circumstance which should confirm us in the opinion that it was a phlebitis with which we had to do, the sub-inflammatory nature of varices, in a majority of cases, being generally admitted since the labors of Breschet, Briquet, etc., and we should believe that an acute inflammation had become engrafted upon a chronic phlogosis.

Notwithstanding the favorable termination in all three of these cases, although the last were treated with extreme moderation, may dissipate our fears respecting the consequences of this spontaneous phlebitis, still they have not taught us to distinguish it from the traumatic form of that disease. These were the facts which formed the basis of the opinions expressed by us in our report of 1842—opinions which have been alluded to above, and are supported in the essay of M. Bouchat.

Finally, some months since, the following case, remarkable

in so many respects, presented itself, which, after stripping it of details foreign to the subject in hand, we proceed to report:

Acute Articular Rheumatism Relieved by Repeated Sanguine Emissions—Typhoid Fever (Follicular Enteritis) Cured by the Expectant Method—Phlegmasia Alba Dolens (Phlebitis) Terminated in Adhesion—Pelvic Ulceration—Exhaustion—Purulent Infection—Death—Necroscopy.

Case VI.—In the description which I am about to give, I have deemed it preferable to divide the history into four periods:

1st. *Period of rheumatism.*—A woman, æt. 30 years, of robust constitution and sanguine temperament, entered the clinic on the 23d of April, 1846. She had been laboring for five days under acute articular rheumatism; the constitutional and febrile symptoms were such that we ordered frequent bleedings (coup sur coup.) Six bloodlettings were practised in as many days, besides which, forty-four leeches were applied, and the rheumatism was thus relieved on the sixth day of the treatment and the eleventh of the disease.

2d. *Period of follicular enteritis.*—On the tenth day of the disease, signs of typhoid fever manifested themselves. The next day we observed the face dull and sunken, nares contracted, tongue coated and dry, abdomen a little sensible on pressure, pulse 100. Emollients.

The following days the adynamic symptoms persisted, and diarrhœa supervened, with involuntary discharges; typhoid bronchitis, with rales, dyspnœa, etc., now came on.—Sedative emollients.—Excoriations, which insensibly increased, were seen on the sacrum.

On the twenty-fifth day (fifteenth of the typhoid state), the patient complained of pain in the right leg, which was perceptibly œdematous, resisting, and sensible on pressure; pulse 120. Emollient cataplasms upon the right iliac region, tepid acidulated lotions to the leg.

The typhoid condition gradually amended under the influence of the sedative emollients to such a degree, that on the sixteenth day of its duration and twenty-sixth of the disease, we were able to pronounce the patient convalescent from this second disorder.

3d. *Period of phlegmasia alba dolens (phlebitis.)*—The twenty-seventh day, the painful œdema, dating now three days, appeared to have diminished in the leg and concentrated itself at the thigh. The expression of the face was good, the diarrhœa occurred only at intervals, but the pulse remained frequent, and the emaciation progressed.

On the thirtieth day, the superficial veins were defined on the thigh and hypogastrium, and we recognised a deep-seated phlebitis, with obliteration. The excoriations still remained comparatively superficial. Emollients; dress the wound with tannate of lead; soups.

On the thirty-second day, the œdema of the thigh was very decided, the articulation of the knee fluctuating. *Ut supra;* mercurial unctions upon the œdema four times a day.

The thirty-sixth day of the disease, the left leg became infiltrated, twelve days after the appearance of the œdema in the right. The general exhaustion progressed. Wine and water, fomentations of quinine.

The forty-first day the two legs were very œdematous, resisting and shining. The veins of the thigh and abdomen, even as high up as the thorax, form a very distinct network. The diarrhœa continued and the ulceration extended. Rice tisane, abdominal cataplasms, opium, soups, dressing with opiate cerate.

On the following days the œdema diminished, was no longer painful, and on the fiftieth day a little thickening of the legs was all that remained. The superficial venous network was very evident. The *phlegmasia alba dolens* or phlebitis, which continued during twenty-five days, might be looked upon as resolved. The diarrhœa and pelvic ulcerations still persisted. Rice tisane, syrup of quinine, injections with extract of rhatania three scruples and ten drops of laudanum.

4th. *Period of exhaustion and purulent infection.*—From this time the exhaustion, caused by the diarrhœa and pelvic ulcerations, which multiply in spite of the various methods and applications that have been used, steadily progresses. Towards the ninetieth day a new œdema arose, now en-

gendered by the cachexia; the ulcerations penetrated to the bone; the face has become hippocratic; the pulse threadlike. Briefly, notwithstanding the tonics and supporting alimentation the patient, exhausted by the suppuration, diarrhœa, fever, and pain, died on the 28th of July, the hundredth day of the disease, the fiftieth after the resolution of the phlebitis, without my being able precisely to fix the period when the purulent infection, caused by the pelvic ulcers that evacuated themselves at the autopsy, had supervened.

Necroscopy thirty-six hours after death.—Extreme marasmus, large and deep ulcers around the pelvis, infiltration of the legs.

Thoracic cavity.—Lungs engôrged with a sero-sanguinolent fluid. On the external portion of the right lung a dozen metastatic abscesses were observed, varying in volume from the size of a pea to that of a filbert; other abscesses of the same nature were found more deeply seated.

Abdominal cavity.—At the end of the small intestine some brown elliptical spots appeared; vestiges of ulcerated or resolved wounds of the ancient follicular enteritis; redness, and fungous condition of the large intestines.

Examination of the veins of the inferior extremities.—On both sides the tibial, crural, external, and internal iliac arteries, and even a portion of the primitive iliac, were found obliterated by a long, consistent, fibrinous clot, varying in color from violet, to a bright yellow. These ancient and solid clots adhere slightly to the internal walls of the veins, which are sensibly thickened and offer various discolorations. The internal saphena veins are free up to their insertion into the crural vein, permeable and contain a small quantity of fluid blood. They communicate by large anastomoses with the branches of the epigastric and the tegumentary vessels of the abdomen, which themselves anastomose with the superficial veins of the thorax. *The articulation* presents nothing remarkable.

The following are the principal reflections which this case suggests:

1st. An acute rheumatism has rapidly disappeared under repeated bloodlettings.

2d. To this affection, regarded at present as purely inflammatory, seeing the excess of the fibrin of the blood which characterizes it, succeeds another affection, the inflammatory nature of which is contested, seeing the diminution of the fibrin of the blood so frequently observed in it; that is, typhoid fever.

3d. During the course of this affection, with deficiency of fibrin, the coagulation of the blood in the inferior extremities manifests itself. Is it not more natural to attribute this coagulation to a phlebitis than to plasticity of the blood which we are unable to prove?

4th. Phlebitis resolved itself after having offered all the characters of phlegmasia alba dolens.

5th. Although there existed around the pelvis ulcers that continually increased, it was only a long time after the resolution of the phlebitis (fifty days) that the patient succumbed to exhaustion and purulent infection, which, even posteriorly to the phlebitis of the members, had manifested its source in the pelvic ulcers.

We proceed to detail another observation, taken from the Bulletin de Thérapeutique, (Oct. 1846,) which, while it confirms some of the preceding considerations, furnishes others that are new.

Phlegmasia Alba Dolens (Phlebitis) occurring in the course of a Typhoid Fever.

Case VII.—A girl æt. 20 years, entered the Necker Hospital in the service of M. Trousseau, towards the end of August, 1846. She had been already laboring under a well characterized typhoid fever, which was accompanied by certain ataxic phenomena. Saline purgatives were administered, at first, every day, and after a little time at greater intervals, under the influence of which the typhoid symptoms very notably amended. Convalescence seemed upon the point of being established towards the third week, when, one

morning at the visit, the patient complained of an extremely sharp pain, which had arisen suddenly during the night, in the left leg. On examination of this part a general serous infiltration of the foot and leg was observed, with tension and resistance of the skin, whose shining color contrasted strongly with that of the limb of the opposite side. The pain was inconsiderable on the anterior portion of the leg, but at the middle of the calf it acquired, especially under pressure, very great intensity. On placing the hand in the popliteal hollow a hard and painful cord could be felt, evidently formed by the obliterated popliteal vein. The limb was engorged throughout, and walking was impossible.

Notwithstanding this complication, convalescence was soon established; the œdema gradually diminished, and although there still remained some traces of it on the 3d of October the patient was nevertheless able to be up the greater part of the day.

Here, again, is a *coagulation* of the blood in a patient with *defibrination*. The author agrees with us in believing it was a primitive phlebitis, pure and simple; and we do think that it cannot be considered as anything else. Another important consideration arising from this and the preceding cases is, that spontaneous phlebitis is not always connected with chronic affections; for in the case in our hands the phlebitis was produced on the twenty-fifth day, and in this at the end of the third week.

It is still further to be remarked, that the subjects of these two cases were in the way of recovery when the phlebitis disclosed itself—that our patient would probably have recovered but for the fatal complication of pelvic ulcers, which supervened fifty days after the resolution of the phlebitis, and that the last patient was positively cured.

Phlebitis, then, is a pure accident, which should not be thought necessarily mortal, and which ought not to be compared, as sometimes it has been, to those "*ultimate*" accidents which announce a speedy dissolution. From these

facts, not multiplied it is true, but which are found corroborated by analogous cases abounding in the archives of the science, we believe ourselves authorized to deduce the following conclusions:

1st. Spontaneous phlebitis most generally, but not always, occurs as a complication of chronic affections.

2d. Spontaneous phlebitis is very probably primitive, viz: anterior to the coagulation of the blood.

3d. Spontaneous phlebitis is probably of the same nature as traumatic phlebitis.

4th. If spontaneous phlebitis is almost always adhesive and rarely terminates by suppuration and purulent absorption, it is, very probably, because the inflamed vein is preserved from the contact of the air.

5th. This agency being admitted, very important practical consequences result, for it demonstrates the advantages of immediate reunions in large operations, the necessity of closing exactly the opening of the vein in venesection, the utility of light dressings, and the excellence of the surgical method called subcutaneous.

6th. Spontaneous phlebitis presents the same symptoms, and is very probably of the same nature, as the affection known under the name of *phlegmasia alba dolens;* and that the latter, therefore, is not a disease peculiar to puerperal women, but may arise in the male sex, and under very varied circumstances.

7th. Spontaneous phlebitis, although sometimes giving rise to extensive œdema, is relieved, almost always, and with much ease, by the application of mild remedies.

8th and finally. Spontaneous phlebitis is a simple accident of disease where it occurs as a complication, and does not infallibly warrant an unfavorable prognosis.

The inhalation of ether continues to be the most exciting subject before the professional mind of Paris. At a meeting of the *Cercle Agricole*, to which I procured a ticket through

our good friend, M. Ed. de Verneuil, I heard an interesting detail, this evening, of its effects upon the lower animals by M. Constantin James, a young man of fine abilities. I have witnessed operations by Roux, Blandin, and Velpeau, at the Hôtel Dieu and La Charité Hospitals, on patients under the influence of the vapor. Among others, I saw Blandin exsect with the most perfect success two mammary tumors from women narcotised by the ether, neither of whom cried or made any resistance during the operation, nor remembered it after it was over. The same surgeon has employed the ether with like happy effects in a number of other cases; but it is only fair to state, that in some instances, while the subjects appeared to be fully under the influence of the narcotic, they nevertheless felt and complained loudly of the pain. Roux has operated very many times on patients who had been prepared by the ether, and in the majority of cases with the most satisfactory results. With Velpeau the article has proved equally successful, and, in addition to several painful operations performed upon individuals under its influence, he reduced, a few days since, a luxation of the shoulder joint in a man which previously to the inhalation had resisted all efforts at reduction. These are only a few of the cases that have occurred at the hospitals mentioned. Every morning, one may witness similar triumphs of this great discovery in the surgical ward of any of the Paris hospitals. I call it a *great* discovery, and so it is esteemed by the profession here. It is even ranked by some with that which has rendered the name of Jenner immortal. The credit of it generally is conceded to our country, but a counter claim has been set up, and a Frenchman is endeavoring to show, that he was the first to prove that the vapors of ether are narcotic.

The work of Desmarres on the eye is not yet out and will hardly be issued before the beginning of April. I am glad to see that a translation of it by Dr. Clendinen, of Baltimore,

is to be published in America contemporaneously with the appearance of the original in Paris. I bespeak for the work the favorable reception of my countrymen, assured by my knowledge of the ability of Dr. Desmarres, that it will be one of the very highest excellence.

Paris, February 27th, 1847.

ART. II.—*An Essay on the Medical Properties of Sanguinaria Canadensis.* By ISAAC THORN, M.D., of Yellow Springs, Ohio.

In view of the neglect with which our indigenous articles of the materia medica have too generally been treated, I have determined to lay before the profession my experience in regard to the therapeutic powers of the *Sanguinaria Canadensis*, a plant often mentioned by medical writers, but the virtues of which appear to be but imperfectly understood. In his elaborate and learned system of Materia Medica, Pereira refers to the blood-root as having been used with favorable results in diseases of the lungs and in rheumatism, and he also mentions that it has been given in jaundice, but the propriety of this practice he considers questionable. Dr. Eberle devotes three pages of his Materia Medica to the consideration of the medical properties of the plant, and quotes a number of authors who have found it a valuable therapeutic agent. Among others he refers to Dr. Francis, of New York, who reports having used it successfully in diseases of the chest, and also in a case of rheumatism. Dr. Eberle gives his own favorable experience in the use of the remedy, especially in cases of asthma; and he quotes Dr. McBride as having administered it with success in a case of hydrothorax. In the United States Dispensatory, by Wood and Bache, the sanguinaria is mentioned in terms of approbation. The authors of that work state that many judicious physicians have borne strong testimony to its curative powers; but, like the

other writers quoted, they do not appear to have arrived at any very satisfactory conclusions as to what are its peculiar properties.

According to the analysis reported by Eberle, the sanguinaria contains cinchonine, extractive matter, resin, a gummy matter, and gallic acid in a state of combination. Dr. Dana, of New York, has found in it a peculiar principle to which he has given the name of *sanguinarina*, and which, no doubt, is the active principle of the root. It is described as a white pearly substance, of an acrid taste, which renders the yellow of tumeric brown, changes the infusion of purple cabbage green, unites with acids, and shows all the other qualities of an alkali.

Writers concur in regarding the sanguinaria as a stimulant, acrid emetic, and narcotic, to which alterative, tonic, and diaphoretic properties have been added by some; but the number of published observations needs to be extended before its *modus operandi* can be accurately determined.—During the last two years I have been closely engaged in observing the effects of the remedy in various diseases, and in this time have used a large quantity of it. The result of my trials with the root is, that it is a *sedative* of no ordinary powers. I should say that, for reducing the force and frequency of the pulse, at the same time without prostrating the system, it is one of our most efficient remedies. In this respect, I have found that it possesses very decided advantages over tartar emetic and digitalis. Its sedative effects are exerted slowly, not being perceived until after the medicine has been administered twenty-four to forty-eight hours, and then come on very gradually. Eberle notices this fact.

I have also found the sanguinaria to possess true *alterative* properties. Under its use the secretions of the liver are manifestly affected, and, with this change, the condition of the stomach improves. I have administered it in a variety of glandular obstructions, and its action in such cases has been highly satisfactory.

The sanguinaria unquestionably also exerts a *tonic* influence on the system, but this it does, I am disposed to think, by virtue of the action just referred to. Restoring as it does healthy secretion, the tone of the system will certainly improve under it. With the returning appetite and powers of digestion, the complexion rapidly improves, and this effect has been so striking, that I have been strongly inclined to believe, that there was something in the bloodroot which increased directly the quantity of blood corpuscles. Whether this conjecture has any foundation in fact or not, my observations have satisfied me that we possess few remedies which more efficiently aid the recuperative energies of the system than the sanguinaria. And in this connection I would refer to the experience of veterinary practitioners, which is not without its bearing upon this subject. In the disease of horses known by the name of *yellow water*, the puccoon root is esteemed by farriers the very best remedy. This disease is attended by extreme debility. emaciation, and an impoverished condition of the blood. The serum is largely out of proportion to the solid constituents; in other words, the blood exhibits all the characters found in it in anemic diseases, and the paleness of complexion and debility of the animal point to the same condition of things. Considering the resemblance of this affection in the horse to chlorosis in the human subject, I should expect benefit from the use of the blood-root in the latter complaint. I have not had an opportunity of making the trial, but it occurs to me as one worthy of being made, especially since the remedy would be likely to exert a beneficial influence aside from any changes that it might induce directly in the blood. But it will be more profitable to dismiss these conjectures for the present, and give some of the results at which I have arrived from my experiments with the remedy.

Case I.—Mr. A., æt. about 40 years, a respectable merchant of Clifton, after exposure to inclement weather, was attacked with pneumonia. I found him with high fever, cough, se-

vere pain in the chest, and expectorating phlegm tinged with blood. He was treated by venesection, tartar emetic, and blisters, for two or three days, when all the symptoms of pneumonia suddenly disappeared, but were succeeded by those of dysentery. The pains in his bowels were severe; the abdomen became tympanitic, and all his symptoms assumed a threatening aspect. On consultation with Doct. Gillett, of Springfield, it was concluded to put him on an infusion of the sanguinaria in such doses as his stomach would bear. His pulse, at the time he began to take this remedy, ranged from 120 to 130, and was tense and corded. After a lapse of twenty-four hours the pulse began to improve, and in two days had declined to 80; and with the amendment in this respect all the other symptoms improved, and convalescence was soon established.

Case II.—The Rev. R. F. consulted me in the summer of 1845, respecting an inactive state of the liver, with which he had been troubled for several years. He was dyspeptic, had dullness of intellect, an icterode complexion, and suffered from constipation of the bowels. I put him upon sanguinaria combined with taraxacum, as follows:

℞. Sanguinar. pulv.
Tarax. ää ʒj.

M., divide into 30 pills, of which take two morning, noon, and night. Under their use the patient soon began to mend. His digestion was better, bowels became soluble, his head clear, and he was finally cured. I might detail other cases analogous to this, but content myself with reciting one of each affection in which I have employed the remedy.

Case III.—Mrs. C., of this neighborhood, aged about 35 years, consulted me in respect to a goitre of eight or ten years' standing. She was the mother of four children, of a slender form, lymphatic temperament and a scrofulous family, her mother having died of scrofula and several of her

sisters exhibiting the taint. I prescribed tincture of sanguinaria, 20 drops, three times daily, conjoined with two grains of the iodide of iron. After a few weeks the latter was discontinued and the sanguinaria given alone, in order that the powers of this article might be fairly tested in the case. At the time the lady entered upon the treatment, the tumor was as large as a man's fist; in six months it was less than a hen's egg. During the use of the sanguinaria her menstrual flux became excessive, and, supposing that the root might have some connexion with this, she was directed to intermit the remedy for a time. The menses were less copious at the next period, and by the second or third they had become natural in quantity. She now resumed the use of the sanguinaria, and at the next return her catamenia was too copious; but her strength is not in the slightest degree affected by the profuse discharge, and in fact her general health has decidedly improved in the two years during which she has used the remedy. The tumor, though materially diminished in size, has not entirely disappeared.

In several cases I have witnessed the same effect upon the uterus from the use of the sanguinaria, and I was visited, this morning, by a lady just relieved by it of dysmenorrhœa.

Case IV.—Mrs. B., aged about 35 years, in the spring of 1835, consulted me on account of difficulty of breathing. This difficulty was increased by the recumbent posture, and was attended by cough, slight œdema of the lower extremities, and, in a word, the general symptoms of hydrothorax. She was at the time pregnant with her second child. I gave her cathartics and diuretics, of which calomel formed a constituent, and by this plan prevented the disease from advancing until after the birth of the child. Soon after that event the symptoms became aggravated, and, having tried a variety of remedies inefficiently, she was put upon the sanguinaria. One of the early and promising effects of the remedy was an improvement in her circulation; which was soon followed by the subsidence of the œdema and other hydropic symptoms.

She continued to mend under the use of the medicine and finally recovered her health.

Case V.—April 29th, 1846, I was called to Mrs. C., the patient of a neighboring practitioner. I found her sitting propped up in bed and breathing laboriously. I learned from the physician in attendance that, a fortnight before, she was seized with a pain in the left side, accompanied by fever, and that she had been bled and blistered for the affection. On examination, I discovered water in the left side. So urgent were the symptoms that, on consultation, it was decided to practice *paracentesis thoracis*, and accordingly I introduced a scalpel between the fifth and sixth ribs of the left side. More than a gallon of fluid was discharged which coagulated on cooling. Immediate relief to the respiratory apparatus followed the operation.

The patient was now put upon the following prescription: ℞. calomel one grain, and sanguinaria and squills of each, in powder, two grains, to be repeated every three hours. She persevered in the course for three days, when her stomach became so irritable that it was found necessary to discontinue the squills and calomel. The dose of sanguinaria was considerably increased, so as to bring the circulation under its influence. For about eight days the fluid in the chest appeared to be returning, but from that time forward there was no increase, and in a month it had disappeared, and the patient was able to be about her work. It is remarkable that, in this case also, something like menorrhagia supervened upon the use of the blood-root, and has persisted up to the present time, notwithstanding which the lady enjoys better health than she did before the attack of hydrothorax. She now has her catamenia upon her nearly three weeks out of every four.

In several cases of hemoptysis I have employed the sanguinaria with success. Females, it is known, frequently have

a discharge of blood from the lungs which is vicarious of the menstrual flux. In cases of this character no article of the materia medica possesses greater efficacy than the blood-root.

I have used this remedy repeatedly in jaundice, and the results of my trials with it have been highly satisfactory. Its applicability to this disease, suggested at first by the color of the root, is now no longer questionable. In all cases of jaundice depending upon a functional disorder of the liver, I should place my reliance upon the sanguinaria.

In intermittent fever, some physicians of my acquaintance regard this article as nearly equal in efficacy to the preparations of cinchona. As a general remedy in this disease I should not be disposed to confide in it; but there is a form of intermittent fever to which it appears to me to be well adapted. I refer to that which appears in the spring after an autumnal attack, and which does not depend directly upon miasmatic poison, but upon derangement in the chylopoietic viscera. In cases of this description I have used the sanguinaria with the happiest effects. In such cases it appears to me far superior to the preparations of bark.

This root ought not to be kept on hand too long. My impression is that after a year it loses much of its power, and I should therefore urge the employment of a fresh article.

I have used all the officinal preparations of sanguinaria, and have also given it in combination with iodine and iron, and several vegetable medicines. The compound of protoiodide of iron and sanguinaria is one which is applicable to a variety of diseases, and is capable of fulfilling important indications. I have also found the combination of sanguinaria and taraxacum a good one.

The use of sanguinaria is contraindicated by a plethoric state of the system, by an inflammatory tendency, and by gastric and intestinal inflammation in the acute stage. In subacute inflammation of these organs I have used the remedy with success.

If this indigenous medicine should turn out as successfully in the hands of others as it has proved in mine, I venture nothing in predicting that the time is not distant when it will be esteemed one of the most excellent articles of the materia medica.

Clifton, March 9th, 1847.

ART. III.—*A Medico-legal Case.* Reported by R. S. STROTHER, M.D., and C. P. MATTINGLY, M.D., of Bardstown, Ky.

The following case was tried at the last term of the Nelson Circuit Court, and as the verdict of the jury turned entirely upon the medical testimony given it is deemed worthy of publication. In April, 1845, Mr. S., of this county, sold to Mr. M., of Jefferson, a negro man, warranting him to be sound; the man was then, and had been for six months, in jail. Three days after the sale he died. S. sued for his money; M. pleaded unsoundness in the negro and obtained a verdict in his favor. The following is a condensed statement of the facts in the case proved by a number of witnesses.

The man was from 40 to 45 years of age, of middle height, large head, short neck, broad chest, and fine muscular frame. With this conformation he was remarkably strong and active. Those who had known him for twenty years had never heard of his having lost a day from his work in consequence of sickness. In this high state of health he was incarcerated, and kept in confinement for six months. The jailor testified that, while in jail, he had complained of pain in his head and side, for which a physician had been consulted. The physician stated to the jury that he had twice visited the man in the six months, that he looked upon his indisposition each time as simply the result of costiveness, for which nothing was needed but gentle laxatives. At the

expiration of the period he was sold as above stated, having a healthy appearance, considering himself well, and regarded as sound by all who saw him. He was taken from jail the day on which he was sold, and walked eleven miles without complaining of fatigue, keeping up with his master on horseback, and stopping to rest but once on the way. The day following he was put to labor at hard work, namely, ditching in a wet clayey soil, but was found incapable of executing a man's task. The next day he continued at the same work for several hours, but as he did not get on well his master, after threatening him for his indolence, put him to felling trees. While chopping later in the day he fell forward suddenly on his face, and, when the overseer who was close by went to him, was found insensible and speechless. His breathing was stertorous, and he frothed at the mouth. In this state he was carried to the house, and the family physician sent for. When Dr. L. arrived he pronounced the man in a dying condition; had his feet put into hot water; and attempted to draw blood, but none flowed. At 9 o'clock that evening he died, being about six hours from the time he fell down.

Thirteen hours after death Dr. L. made a partial examination of the body. He stated to the jury that he had examined the chest and abdomen, in which he found the following appearances: The heart was the smallest human heart he had ever seen, weighing, he thought, not more than four ounces, though he did not weigh it nor take it out of the body. One half was *tending to ossification*, and the other half was *mortified*, and so soft that he could have thrust his finger through it; he did not, however, cut into it, nor was he sure whether or not it contained any blood, but thinks it could not, as he did not *hear it rattle*. The pericardium, according to the best estimate he could make, for he did not measure it, contained five gills of serum, and he informed the jury that any quantity over two drachms was evidence of disease. The smell of the cadaver was so offensive that all the persons

in the house, "but himself, were made to *puke;* he was accustomed to such things."

The lungs he found in a still worse condition. In parts they were so mortified that they fell to pieces when not carefully handled. He did not take them out nor make an incision into them. The pleura of the lungs adhered firmly to the pleura of the ribs. He looked into the stomach, found it empty, of an unhealthy color, and "the folds gone." The alimentary canal gave strong evidence of disease, and the *mesenteric glands* were very much *enlarged*, being about the *size of summer grapes*. The liver was of a dark color, and had some blisters on it. He did not examine the brain, but thought he discovered cause enough for the death of the man in the thoracic and abdominal cavities. He took no notes of the examination, and was not assisted by any medical man; he has since become the family physician.

Dr. P., who until lately was Mr. M.'s physician, arrived shortly after the negro died, and, from the symptoms related to him, pronounced the case apoplexy. Dr. L. testified to the jury that he did not look upon apoplexy as a disease! The physicians of Bardstown and its vicinity concurred in the opinion of Dr. P. They could not believe that it was possible for a man laboring under extensive disease of the heart, lungs, and bowels, to have gone through the labor performed by this individual; and all the appearances revealed by the autopsy they regarded as *cadaveric* phenomena.

The jury, however, thought with the doctor who did not consider *apoplexy* a *disease*, and returned a verdict accordingly. The appearances presented by the dead body, as so vividly set forth by Dr. L. outweighed the testimony of all the other witnesses.

This case, it appears to us, is instructive in many ways. We submit it to the profession without the comments which naturally rise to the mind.

Bardstown, March 24th, 1847.

REVIEWS.

ART. IV.—*Lectures on Subjects connected with Clinical Medicine: comprising Diseases of the Heart.* By P. M. LATHAM, M.D., Fellow of the Royal College of Physicians; Physician Extraordinary to the Queen, and late Physician to St. Bartholomew's Hospital. 8vo. pp. 365. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1847. [Bell's Medical Library.]

Dr. Latham's name is already familiar to our readers as that of a correct writer, and an able and experienced author. His former volume of lectures on clinical medicine, introduced from abroad through Bell's Select Medical Library, was everywhere received with merited favor; and we feel certain, that the present volume is destined to a much wider popularity.

The diseases of the heart are among the most interesting that we are called upon to treat, and are those wherein the practical usefulness, not to say the absolute necessity, of a knowledge of auscultatory signs is most clearly shown. The stethoscope has disclosed to us that what was considered rare, is frequent; what was thought accidental, is constant; and what was known for the most part as a result and irremediable, is now for the most part obvious at its beginning, and while yet within the power of art. Until it was brought to bear successfully upon these affections, they were little else than matters of curiosity. Specimens of diseased hearts were collected and preserved in cabinets, and were gazed at by the curious, just as fossils were wont to be kept and looked at and gazed at in the cabinet of the naturalist. Or

they garnished museums of morbid anatomy, as trophies of the dead-house, speaking of pain and anguish and mortal suffering, though none could tell how or when; just as in the museum of the antiquary battered shields, broken lances, and cleft helmets, dug from some unrecorded battle-field, speak of the "drums and tramplings" of contending hosts, though none can tell how or when. Auscultation brought to the consideration of these diseases "a new light, and a new interest." Yet for a long time the practical benefit was small. It required the labor of years and of many minds—of such minds as gather up unconsidered trifles in the way of knowledge—to attain any profitable result.

"And at length the mark has been hit, and the prize has been won. For now there is no truth experimentally more certain than this, that auscultatory signs above all others, and oftentimes before all others, and oftentimes in the place of all others, may be safely trusted to declare the beginning and the augment, the decline and the cessation of acute inflammation in those structures of the heart, which are especially, if not solely, obnoxious to it; and that the same signs may be confidently appealed to as guides, by which to choose the remedy, and apportion its quantity and regulate its force, and continue or discontinue its application."

Dr. Latham, after a very lucid account of the sounds, impulses, and resonances of the heart, the mode in which they become signs of its disease, and the value of these signs, proceeds to the discussion of inflammation of the heart, and its connection with acute rheumatism. It is here we shall begin our quotations, as it is a subject of practical interest and one which we hope to compress within the necessary limits. He has found inflammation of the heart, in the form of endocarditis and pericarditis, separately or together, much more frequent in connection with acute rheumatism than it is generally supposed to be.

"Between the years 1836 and 1840, both inclusive, there

occurred under my care at St. Bartholomew's Hospital 136 cases of acute rheumatism:

"Of these 136 patients 75 were males, and 61 were females; of the 75 males the heart was affected in 47, and unaffected in 28.

"Of the 47, the seat of disease was the endocardium alone in 30; the pericardium alone in 3; and both the endocardium and pericardium in 7. And, while the heart was undoubtedly affected in 7 others, the exact seat of its disease was uncertain.

"Of the whole number of males in whom the heart was thus variously affected, 3 died. And in these 3 the pericardium and the endocardium were both inflamed.

"Of the 61 females, the heart was affected in 43, and unaffected in 18.

"Of the 43, the seat of disease was the endocardium alone in 33; the pericardium alone in 4; and both endocardium and pericardium in 4; and the exact seat of the cardiac disease was doubtful in 2.

"Of the whole number of females in whom the heart was thus variously affected none died.

"The account of males and females taken together will stand thus:—

Cases of acute rheumatism - -	136
Heart exempt in - - -	46
Heart affected in - - -	90
Seat of disease in the heart:—	
Endocardium alone in - -	63
Pericardium alone in - -	7
Endocardium and pericardium in	11
Doubtful in - - - -	9

Deaths 3. In all of whom both endocardium and pericardium were affected.

"Here are momentous facts, which go (I suspect) a good deal beyond the ordinary notions entertained by medical men of this matter. It is believed that among the sufferers of acute rheumatism, an individual now and then unluckily has his heart inflamed. The thing is looked upon as an accident which, if not very rare, yet is not very common. But it appears, from the event, not of a dozen or twenty cases merely, but of a number large enough to furnish the measure of what naturally belongs to the disease, that as many as two-thirds of those who have acute rheumatism also suffer inflammation of the heart.

"Further, the pericardium is popularly regarded as the special and most frequent seat of the inflammation which takes its rise from acute rheumatism. But it appears from cases sufficiently numerous, that endocarditis occurs nine times in acute rheumatism, for pericarditis once; that simple endocarditis constitutes more than two-thirds of all rheumatic cardiac affections, and simple pericarditis only one-thirteenth; and that pericarditis is more frequently found in combination with endocarditis than alone."

The lungs are also liable to suffer in acute rheumatism. and in rheumatic inflammation of the heart. It may be a bronchitis, a pneumonia, or a pleurisy, and in all cases puts on a serious character.

"Of the 136 cases of acute rheumatism which form the basis of our inquiry, inflammation of the lungs was found in 24. Here the proportion is about 1 in 5½. But *how* were these 24 cases distributed? What proportion of them occurred where the heart was unaffected, and what proportion where the heart was inflamed? And, again, what proportion, where the inflammation was of the endocardium alone; what, where it was of the pericardium alone; and what, where it was of the endocardium and pericardium simultaneously?

"Of the 46 cases of acute rheumatism in which the heart was unaffected, the lungs were inflamed in 5. Here the proportion is as one to nine. But of the 90 cases in which the heart was inflamed, the lungs were also inflamed in 19. Here the proportion is more than one in five.

"The 19 instances of inflammation of the lungs were distributed among these 90 cases of inflammation of the heart in different proportions, according to the part of the organ affected.

"Of the 63 cases of endocarditis the lungs were inflamed in 7. Here the proportion is as one to nine.

"Of the 7 cases of pericarditis the lungs were inflamed in 4. Here the proportion is more than one-half.

"Of the 11 cases of endocarditis and pericarditis simultaneously, the lungs were inflamed in 8. Here the proportion is more than two-thirds.

"What can we, or what can we not, conclude from this enumeration of facts? What general truths do they declare?

"We cannot conclude, from inflammation of the lungs being found in one case of acute rheumatism out of nine, that acute rheumatism has any strong natural tendency to inflame the lungs. Neither can we conclude, from its being found in one case of rheumatic endocarditis out of nine, that rheumatic endocarditis has a special natural connexion with inflammation of the lungs. The probability of inflammation of the lungs arising out of acute rheumatism is small; and the probability is not at all augmented by its alliance with endocarditis. For in acute rheumatism, inflammation of the lungs does not occur more frequently when the endocardium is inflamed, than when the heart is entirely exempt from disease.

"We find it to be between inflammation of the pericardium and inflammation of the lungs, and between inflammation of the endocardium and pericardium occurring simultaneously in the same subject, and inflammation of the lungs, that frequent coincidence seems to establish a natural connexion.

"That inflammation of the heart which is least perilous in itself is least liable to have its danger augmented by an union with inflammation of the lungs, viz: endocarditis; while that which is most perilous in itself is most frequently accompanied by inflammation of the lungs, adding immensely to its danger, viz: simple pericarditis, or endocarditis combined with pericarditis."

Endocarditis and pericarditis being the same in essence (inflammation), often occurring together in the same subject, and belonging to the same pathological condition, are to be treated by the same remedies. The treatment is either *preventive* or *curative.* The former consists in the proper management of the general pathological state out of which they arise. Acute rheumatism, it is well known, is successfully treated by the most various and opposite remedies. Some look entirely to the vascular system, and depend upon bloodletting; some to the nervous system, and rely on opium; some to the stomach and bowels and liver, and trust to calomel and purgatives.

"At the first view all this looks very strange. The cure, or seeming cure, of the same disease by different remedies,

even by remedies which in their mode of operation have nothing in common, appears like luck or accident. At the first view it may shake one's faith in physic a little, and may a little excuse the pleasantry of some who choose to hint, that Nature is our best friend after all; for do what we will, she brings things to a prosperous issue in spite of our blind inference.

"But without disparaging the part that Nature plays, I here see no fair subject of ridicule, and no fair reason for distrust of methods of rational treatment. The first maxim of all rational practice is, that Nature is supreme; the next, that Nature is obsequious. The end, whether bad or good, death or recovery, and every step and stage conducive to it, are the unquestionable work of Nature. But Nature, in all her powers and operations, allows herself to be led, directed, and controlled. And to lead, direct, or control for purposes of good, this is the business of the physician. But how to do it best, he has to exercise a choice of modes and means in every case, which, though never exempt from the possibility of error, becomes less fallible by the teaching of experience.

"This choice leads, and always will lead, to diversity of practice, which no way disparages, but rather tends to enlarge and to enrich the resources of our art."

Of these three modes, the author thinks that by opium better than that by bleeding, and that by calomel and purgatives better than either. His discussion of these we must omit, although it is both interesting and able. We cannot forbear, however, giving the following quotation in reference to bloodletting:

"Now, one chief hazard of large bleeding is from the shock it is apt to communicate to the nervous system; and it is this which we should especially seek to avoid, when we employ venesection in acute rheumatism. Venesection is often needed; needed for what no other remedy can perform towards the cure, and therefore not to be omitted. It is needed especially to abate high vascular action. But no such thing must be thought of as bleeding, and bleeding, until the large pulse becomes small, and the hard pulse soft. For, to bring about this, blood must be let flow to a terrific amount. Fulness and hardness of pulse are indeed express

characteristics of acute rheumatism, rising to superlative degrees, and enduring pertinaciously, and resisting stubbornly the power of remedies to pull them down. To abolish them at once or speedily in the severer cases, is hardly possible by any counteracting means which medicine can safely employ. They are above a match for them all, and they *will* endure their time. They are above a match even for venesection, unless it be pushed with a desperate hand, careless and reckless of new dangers to life."

After a full examination of these methods, both theoretically and practically, Doct. Latham insists that a mixed treatment—venesection, opium, and calomel—is the best for acute rheumatism, and the safest as a preventive of the cardiac affections.

"The practice which chooses and follows a single indication, and chooses and trusts to a single remedy, is indeed a plain and intelligible, but a harsh and subduing, practice. In cases of ordinary severity, if the entire disease is to be effectually reached and counteracted through the bloodvessels alone, a single venesection of large amount would be needed, or a venesection of smaller amount once or twice repeated. If through the nerves alone, four or five grains of opium would be needed in each 24 hours. If through the abdominal viscera alone, a large dose of calomel and a draught of senna and salts would be required night and morning for three or four successive days.

"Here is much violence done and felt as the price of success. Venesection, single-handed, to do its work successfully, must strike with the violence that shocks, opium with the violence that oppresses, calomel and purgatives with the violence that hurts and irritates. It cannot be otherwise. If one remedy is to do all, it must be heavily charged and resolutely driven home to its purpose.

"But each remedy may be charged with less force, if one be made auxiliary to the other. Bloodvessels, and nerves, and abdominal viscera may be severally spared the shock, the oppression, and the pain, if they are subjected simultaneously to their several remedies. Thus, in cases of ordinary severity, a single moderate venesection instead of several, or instead of one of large amount, two grains of opium distributed over twenty-four hours instead of four or five grains,

moderate doses of calomel followed by purgatives instead of very large doses given and repeated for three or four successive nights and mornings, comprise a treatment powerful enough, and always safe, and generally successful, and not painfully felt. Perhaps it would come pretty near the truth to say, that two-thirds less of blood-letting, two-thirds less of opium, two thirds less of calomel and purgatives, are needed when they are all made confederate for the cure of acute rheumatism, than when any one of them is employed alone.

"In several cases, however, the proportion of the remedies to each other would vary. Sometimes more, sometimes less, blood-letting would be called for, and often none at all. So, too, more or less opium, and more or less calomel and aperients.

"I have remarked of the effect of blood-letting in acute rheumatism, that it belongs to it rather to render the disease more curable by other remedies than to cure it itself. Blood-letting, therefore, properly takes the lead of other remedies in point of time. For if it be necessary, the whole treatment must tarry, and other remedies come short of the good of which they are capable, until it is performed. On the first view, then, of the patient, the immediate question is: Should he be bled? and if so, to what amount? This question it would be foolish and dangerous to pretend to settle anywhere but in the wards of a hospital, and with the very patient before you, and your finger upon his pulse. Well! and what then? Why! then, if you judge that there is more force of circulation than calomel and purgatives operating upon the bowels, aided by the soothing effects of opium upon the nervous system, will be able to abate, you may bleed.

"This is the best direction I can give. But, be it the best and wisest that can be given, it must be utterly useless, nevertheless, except to those who are or shall be constantly busied about the sick. For by this direction, whether to bleed or not to bleed is made to wait upon a judgment which must first be formed upon two points. And these two points nothing but the most constant bedside experiments can make sure of. They are these—the exact force of the circulation, in a particular instance, to be ascertained by the pulse; and the probable power of calomel, and purgatives, and opium to reduce it, to be estimated by the ordinary effects of the same remedies.

"I do not wish to exaggerate the difficulties of medical practice; neither do I wish to conceal them. I am sure you

will never surmount them, unless you first feel and acknowledge them. And some practical experience is needed even for this.

"When from the pulse I have considered venesection necessary to bring down the circulation, the loss of between twelve and sixteen ounces of blood has generally been enough to answer the purpose in view; and the venesection has seldom been repeated.

"The opium, and calomel, and purgatives I have been accustomed to give in combination thus:—With calomel administered at night, according to its quantity, I have united more or less of opium. To ten grains of calomel I have added one grain of opium; or to five of calomel I have added half a grain, continuing to give them together in the same proportion, night after night, as long as they were needed. Then, on each succeeding day, when a large purgation of the bowels has been duly obtained, I have still given the opium alone, or with saline draughts, in doses of half or one-third of a grain, every five or six hours. And thus, with the larger quantity at night, and the smaller quantities during the day, about two grains of opium have been commonly taken in the course of twenty-four hours.

"Here, then, the vascular system, and the nervous system and the abdominal viscera are all at the same time made to feel sensibly the impression of the remedy, but none of them is subdued by it. And while blood-letting, and opium, and calomel with purgatives are all made confederate for the cure of the disease, none of them is given in excess.

"Now, I do not pretend to say, that this is just the measure, and just the relative proportion in which these several remedies need always to be employed for the cure of acute rheumatism. There are circumstances which would require them to be varied. But, apart from the patient, they cannot be represented intelligibly. As of venesection, so of these other remedies, after the propriety of their use is already understood, the skill of using them remains to be learnt; the skill which sees when to give a little more, and when a little less, oftener or seldomer—when to bear heavily or lightly on the bloodvessels, when heavily or lightly on the nerves—and when to obtain larger or smaller purgation of the abdominal viscera. This is the skill which cures diseases and saves lives. And no man ever had it, who did not obtain it from his own self-teaching amid the emergencies of actual practice."

Colchicum cannot be trusted in the severer cases, but may be in the milder ones. Even in the latter it is slow, and does no good unless it acts "in the first degree of its poisoning power," viz: purging smartly and painfully. Still the author employs it in special emergencies, with a trust and confidence he has in no other remedy.

"When by venesection and by opium and calomel with purgatives, excess of vascular action, and fever and pain and swelling are abated, yet none of them are entirely abolished, but all still linger; or when pain and swelling do not subside at all in proportion to the abatement of vascular action and fever, which are considerably reduced, then I invoke the aid of colchicum, and give twenty or five-and-twenty minims of the wine of the seeds or the root, twice or thrice a day, and I often find the disease proceed uninterruptedly to its cure.

"Again, when by the same ordinary course of treatment fever, pain, and swelling have been made to cease entirely, and have suddenly and unexpectedly returned, then I invoke the aid of colchicum, and give it in the same way; and a few doses are commonly enough to dissipate the returning disease, and restore the conditions of health. This is a pure case of relapse. The relapse, however, very seldom reaches the severity of the original attack.

"Now on all such emergencies I have been accustomed to administer the remedy quite alone, uncombined with either alkali or opiate, so that the benefit which has resulted has been without question exclusively due to it; and not only exclusively due to it, but due to it purely as colchicum in virtue of that mode of action, (whatever it may be) which specifically belongs to it. For the cure has followed suddenly, and not waited for any immediate operation of the remedy upon the stomach and bowels."

These same remedies—bleeding, opium, and calomel—must be used when inflammation of the heart is *actually* present; "but bleeding in different modes and measures, mercury directed to a totally different purpose, and opium given with more than one single intention." Some of the circumstances and conditions of actual practice in which we meet with endocarditis or pericarditis, are thus noticed—

"Take a case which you have watched and treated day after day; a case in which day after day you have examined and listened to the chest, fearing and guarding against surprise, and have felt all possible confidence that hitherto the heart is free. In such a case pain arises, distinct and sudden pain in or near the præcordial region; or the heart suddenly begins to beat with excessive impulse; or the heart, as if struck with weakness, suddenly begins to flutter and act irregularly. But withal your ear detects neither bellows-murmur, nor sound of attrition. What then are you to think of the disease, and what to do? You are to conclude that inflammation is begun in the heart, and you are to take measures to subdue it without a moment's delay.

"Pain in the heart; excessive impulse of the heart; irregular action of the heart; any one of these, or any two, or all of them together, coming on in the course of acute rheumatism make inflammation of the heart so nearly certain, that it would be folly to suspend the remedy by waiting for more certainty, and so running the hazard of having a more advanced and less tractable disease to deal with.

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"Take another case of rheumatism, in which you have been daily upon the watch for the least sign of evil befalling the heart, and hitherto have found none: no pain; no excess of impulse; no irregular action. In such a case, when you least expect it, you may hear something unusual in the heart. It may be its systolic sound prolonged in an undue degree, or a little harsh. and nothing more. Yet this, if it be really so, even this alone is enough to call for instant measures to subdue inflammation of the heart. For it is almost certain that, by to-morrow, this sound, a little more prolonged, and a little harsher than natural, will become a genuine bellows-murmur, and declare the sure existence of endocarditis.

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"Take another case of rheumatism, in which neither præcordial pain or excess of impulse or irregular action have hitherto drawn attention to the heart, nor do they now. But now your ear may begin to admonish you of something belonging to the heart, which was not there the last time you listened: a sound which is no modification of what is found in health, but is entirely new, and unnatural. This sound may be as yet audible in so small a space of the præcordial region, that, of several who have been carefully listening to the patient's chest during the last half hour, one only has happened to light upon it. Yet is it so sure and certain a

reality, that no sooner is attention pointed to the spot, than all can hear it, and all have no doubt of it. The sound is an indefinite sound still; each person who hears it likens it to something different. It is not such as can fix disease either upon the endocardium or the pericardium. But coming on in the course of acute rheumatism, it must be taken for an announcement that all is not right in the heart, that it has begun to suffer after the manner to which acute rheumatism renders it obnoxious, and that it is already in a state of inflammation. Therefore the remedy must no longer tarry. Ere a day is gone, this indefinite sound will be changed into an endocardial or exocardial murmur.

"Take yet another case in which, from the absence of all symptoms referable to the heart, you believe it to be hitherto unhurt. You listened perhaps a few hours ago, and still found nothing to excite suspicion. And now listening again you hear the endocardial, or you hear the exocardial, murmur completely formed. These sounds, being the concomitants of acute rheumatism, announce at once inflammation of the heart, and fix its seat either in the membrane that lines it within, or the membrane which invests it without. Here nothing is wanting to the instant and complete disclosure of the disease; and nothing should be wanting to the immediate and efficient treatment of it.

"These are the ways in which I have seen endocarditis or pericarditis begin, when I have witnessed their beginning. Things different in kind, a pain, an impulse, or a sound: things great or small, palpable, or hardly discernible, and never discerned but by the practised sense, have given the first authentic notice of these awful diseases. Therefore the eye, the ear, and every sense and faculty which can convey intelligence of what goes on within a man should be kept upon the watch for these things."

When any of these signs appear, our treatment should be directed to the heart. This *curative* treatment is thus sketched:

"As soon as inflammation is known or suspected to have reached the heart, mercury must be given without delay. Or should mercury be already in use, as a remedy for acute rheumatism, with the intent of obtaining large evacuations from the bowels, it must at once have a new direction given to it. The irritation it has produced within the abdomen must by all means be pacified, and its constitutional impres-

sion must now alone be thought of,—that impression, of which salivation is the best evidence, of which (as far as we know) it alone, of all remedial substances, is properly and exclusively capable, and which under favorable circumstances, is largely counteractive of inflammation.

"But, inasmuch as that impression of mercury, or salivation, which is the best evidence of it, cannot be commanded within any given time, you must be content to administer it in the manner calculated for this purpose, and wait the event. For no judgment can be formed of its curative effect upon the disease until salivation arrives. And it may arrive in a day or two, or not until after several days, or after a week, or after several weeks, or it may not arrive at all.

"You must give mercury, then, and wait until salivation come to tell you what it has done for the disease, or until it is fair to conclude there will be no salivation. And it does, I confess, require strong confidence in this great remedy, thus to give it, and thus to wait for its ultimate effect, when in the meantime it displays no proximate or intermediate effect as an earnest of its curative operation.

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"With respect to venesection, if in acute rheumatism, any of those symptoms referable to the heart are present, which have been already mentioned, auscultatory or non-auscultatory, and especially if they have arisen under your own observation, or, though not under your own observation, if they be now present, and you have reason to believe that they have *recently* arisen, then, should the pulse be found to have even a notable degree of that hardness which is deemed inflammatory, blood must be taken from the arm. Should there be any doubt about venesection, any misgiving whether the inflammatory hardness of the pulse is quite enough to require it, let it be employed nevertheless. There is greater hazard in omitting it wrongfully, than in practising it wrongfully.

"But with the same amount of vascular action evidenced by the state of the pulse, in a case of mere rheumatism, in which the heart was not affected, venesection would be neither necessary nor proper.

"Again, if in acute rheumatism, with symptoms referable to the heart and those recently declared, fever and vascular action run very high, and there be extreme fulness and hardness of the pulse, a copious venesection should be practised. And the same should be repeated, were the hardness and fulness of the pulse found not to yield. And repeated again

and again, until the hardness and fulness of the pulse were much abated.

"With all this fever and inflammatory action, and all this hardness and fulness of the pulse, had the case been one of mere rheumatism, and the heart unaffected, venesection would have been properly employed, indeed once or even twice, but it would not have been carried further for reasons formerly assigned. Now, however, more danger is to be feared from the progress of inflammation in the heart, than from any shock imparted to the nervous system by loss of blood.

"But though the disease be inflammation, and the organ inflamed be a vital organ, even the heart, bleeding must have a limit; for bleeding cannot alone be trusted to cure the disease. Mercury must become its auxiliary. And if for no other reason than to obtain from the mercury a fuller curative operation, bleeding must have a limit.

"Looking, as I do, mainly to mercury to save life or to save the organ, I am constantly careful in the management of every case to do everything to aid, and nothing to hinder its curative operation. Especially in the use of venesection, I bear this in mind; for sure I am that loss of blood can both aid and hinder it according to its amount.

"In men of florid aspect and full blood-vessels, though *bleeding* has not been needed for its own sake, yet has it oftentimes been *moderately* used for expediting the sensible effects of mercury. And the sensible effects thus induced have been at the same time curative. But, if the body be first made exsanguine by the lancet, you may gain the *sensible* effects of mercury, and lose the curative; for the two do not of necessity go together.

"As mercury can be less trusted for its antiphlogistic power in those who either naturally or from some previous disorder are pale and anæmic, so in the robust and sanguineous if you would have mercury exercise that power it has for the control of inflammation, you must beware of *making* these what the others *are*. You must hold your hand from excessive venesection. In inflammation of the heart you must not first change a fine ruddy countenance into the aspect of a chlorotic girl, and then leave mercury to complete the cure without anxiety or distrust of the event.

"Recollect, then, that in rheumatic inflammation of the heart, whether it be endocarditis or pericarditis, blood-letting by venesection is to be little in one case, and much in another, according to the present force of vascular action

throughout the body; and little or much respective to its own proper benefit as a remedy; and little or much respective to its secondary uses in procuring the more effective operation of mercury. And recollect, moreover, the cautionary admonition applicable alike to the management of this and of all diseases in which a large share of the cure is confided to mercury, recollect, not to lessen or to lose its curative operation, either by bleeding too little or bleeding too much; for plethora and anæmia are alike obstructive of it.

"But there are other modes and means of blood-letting besides venesection. There is cupping, and there are leeches.

"Now in rheumatic inflammation of the heart, cupping or leeches, or both, may be needed as auxiliary to venesection; or exclusive of venesection, they alone may be needed and trusted for taking as much blood as the nature of the case requires.

"As it often happens to other organs when they are inflamed, so also to the heart, that when general vascular action has run high and venesection has been employed to reduce it, and *has* reduced it effectually, the local symptoms will remain altogether, or almost, unmitigated. Thus pain and palpitation of the heart, and unnatural sounds, often abide in the same degree, or nearly so, after venesection as before it; and then cupping or leeches come in as effective auxiliaries, and the local bleeding often makes at once an appreciable impression upon what the general bleeding has not touched.

"Again, as in other parts of the body, so in the heart, it is no uncommon thing for inflammation to begin and proceed onwards to destructive disorganisation *without being felt as an inflamation* by the constitution at large. It imparts no special hardness to the pulse, and no extraordinary force to the circulation, yet is it working its own injurious changes locally: palpitation, or pain, or irregular action, or unnatural sounds, declare as much. Here all that blood-letting can compass for the relief of the disease and its symptoms will be attained by cupping, or by leeches alone.

"Now there is a choice between cupping and leeches. One may be a more appropriate remedy than the other in a particular case; and yet I dare hardly trust myself, apart from the patient, to point out what it is that should determine you to prefer one to the other.

"So dexterous are those who are well practised in the art

of cupping that they can make their glasses draw a given quantity of blood in almost as short a time as the lancet; whereas leeches are long at work in taking away the quantity you desire. Therefore, upon the principle of requiring in the remedy a force and rate of operation proportionate to the force and rate of the disease, I should say that when the pain or anguish, or by whatever name you may call the distress, immediately referable to the heart, begins suddenly, is at once felt severely, and augments rapidly, then cupping is the remedy; but that, when it comes on by little and little, and increases slowly, and has not reached a great amount, then leeches are the remedy. But leeches are often needed as auxiliary to cupping, just as cupping is to venesection.

"There is another thing worth mentioning as to the use of these remedies. When I have employed cupping in inflammation of the heart, I have been accustomed to have the glasses applied between the left scapula and the vertebral column. Applied upon the præcordial region, they have seemed to me to cause peculiar distress, and to be not without the hazard of doing mischief and violence to the heart in its present condition; for recollect that *now* a slight percussion upon the cartilages of the ribs, or any degree of pressure which shall carry them ever so little downwards towards the heart, will often occasion pain. Besides, blood taken from between the scapula and the spine produces all the relief to the heart which could be expected.

"But we must come nearer yet to the bedside of the patient, and look still more closely into the immediate effect of blood-letting in inflammation of the heart. Its effect, day by day, is the earnest of its ultimate effect. The sensible impression of each venesection, or of each cupping, or of each application of leeches, is a measure of the good they are doing, and of the trust to be reposed in them as remedies. But what is this effect which is to be looked for day by day?

"In inflammation of the lungs or pleura, blood-letting shows its favorable impression by setting free the respiration and diminishing pain. In inflammation of the brain, by abating delirium, or coma, or spasm, by restoring clearness to the sense, and intelligence to the mind; in inflammation of the peritoneum, by softening the tense abdomen, and making it more patient of pressure. And if the heart be inflamed either within or without, any of the several modes of blood-letting will denote itself to be exercising a curative power upon the disease, when it moderates pain, or when it mode-

rates excessive impulse, or when it renders its beats regular again, which were irregular before. Thus it is in the sensations and functions of the heart as of other organs, that we see the benefit which blood-letting is doing, or is ultimately to do, towards the cure of its inflammation.

"Next as to the use of opium. It indeed is needed now that the heart is inflamed, to calm the nervous system, and to abate pain, as it was needed before; and moreover, it is needed for another purpose, viz: to give effect to the operation of mercury in one mode at least of administering it.

"If in aiming to produce salivation you give calomel internally, you must restrain it from running off by the bowels: and this can only be done by opium. Opium must be combined with every dose of calomel, and the quantity of each must be proportioned to the other. Thus, perhaps, we shall generally find ourselves compelled to give more opium for the purpose of keeping the bowels patient under the stimulus of calomel, than we should give merely to soothe the nervous system under the general irritation of the disease. But, as the remedial operation of mercury is not now under consideration, it is unnecessary to say more at present of opium as its adjunct and auxiliary.

"Besides, however, these, its common uses of calming the nervous system, and abating pain and aiding the effect of mercury, opium has its extraordinary uses for extraordinary emergencies. In endocarditis and pericarditis, not always, but most commonly, pain is present; pain of the heart varying in amount, and upon the whole abiding, yet allowing remissions and abatements. But whether the customary pain be present or no, a sudden agony will sometimes seize the heart, and at once the patient will feel and look as if he had received his death -blow. It is like a spasm of the heart. It is no other than a paroxysm of angina pectoris. This terrible seizure attends pericarditis more frequently than endocarditis, and where it has once occurred, it is apt to occur again. Its only remedy, as far as I know, is a large dose of opium. Opium is the only means of rescue during the agony, and the only safeguard against its return."

The author places great reliance on the use of mercury in these affections, chronic as well as acute; and he discusses the subject of its employment at very considerable length. We must pass by all this with the following extract:

"Mercury, as a remedy for inflammation, requires to be administered with as careful an adaptation of its dose to the exigencies of each particular case, as bleeding does of its mode and quantity. The principle of practice is this, to measure the force and rate of the counteractive impression to be produced, whether by blood-letting or by mercury, by the force and rate of the disease. If you have an inflammation of the greatest force and greatest rapidity to deal with and organic changes are taking place from hour to hour, and blood-letting is to be your remedy, its mode must be by venesection, and its quantity must be of large amount; and it may need to be repeated again and again, and at short intervals. The blood-letting must make itself felt with a force and a rapidity which shall exceed the force and rapidity of the disease, otherwise it is no remedy at all. So, too, in the same conditions of inflammation, if mercury is to be your remedy, its dose must be large, and repeated. Calomel must be given in the dose of half a scruple at once, and again after six or eight hours. The patient's life may depend upon his being salivated within a couple of days. The mercury, like the blood-letting, must make itself felt, by its specific effects more forcibly, and more rapidly, than the disease, otherwise it will fail of its counteractive operation.

"But if the inflammation be of little force, and slow in its progress, and its organic changes such as are not visible from hour to hour, or even from day to day, but rather from week to week, then, if your remedy be blood-letting its mode must not be by venesection, but by cupping or leeches, and its quantity must be small, and, if it be repeated, it must be at more distant intervals. For now it is essential to the cure that the counter-impression of the blood-letting should be kept down to the small measure of power, and the slow rate of progress, belonging to the inflammation; otherwise it is no remedy at all. And in like manner, if mercury be your remedy, it mst now be given more sparingly and less frequently. The object is to produce salivation, not as soon as possible, but slowly and without surprise or violence. A grain or two of calomel once or twice a day, or even some milder preparation of mercury, will bring its specific effects to bear upon the disease after many days, but still remedially."

Touching the curability of hypertrophy of the heart, Dr. Latham's experience is opposed to that of many physicians.

He has never yet met with a single instance in which he was satisfied that a cure was effected. In the cases reported as cured, the disease was only counterfeited.

"I am well aware that there is a mock hypertrophy of the heart bearing so close a resemblance to the true, that I should find no fault with you for being taken in by the counterfeit.

"There may be violent impulse of the heart, felt not only in the præcordial region but in every part of the front of the chest upon which you lay your hand; and there may be pain in the heart, and pain and throbbing in the head; and all these may be never absent and often aggravated from time to time by accidental circumstances; and they may continue from first to last for several months, or for several years, and produce in the meanwhile an incapacity of all useful exertion both mental and bodily: all these may be, and yet there be no hypertrophy.

"Impulse of the heart, taken alone, however great and however extensive it may be, is not a sure physical sign of hypertrophy. Hypertrophy indeed cannot exist without excess of impulse, but excess of impulse can exist without hypertrophy. When the impulse of the heart is excessive, and at the same time its sounds are obtuse, muffled and indistinct, and the præcordial region presents a larger space than natural which is dull to percussion, then the signs of hypertrophy are complete. And hypertrophy so sure and unquestionable was never cured within my experience. But when the impulse of the heart is in excess, and at the same time its sounds are as loud and clear as ever, or louder and clearer still, and the whole præcordial region is quite resonant to percussion save the small space which is naturally dull, then the signs of hypertrophy are incomplete. Yet if this be enough to constitute hypertrophy, I have seen and treated it successfully in a hundred instances. But in the meantime I have not thought that I had to do with any such affection or ever claimed the least credit for curing it.

"Cases of mock hypertrophy of the heart are indeed very numerous. Young persons at the prime of life are especially the subjects of it. They are often plethoric and often sedentary, and can assign the origin of their complaint to no particular time and to no particular exciting cause. In them the excessive action of the heart is doubtless owing to a rich

and redundant blood; and the cure of their simulated hypertrophy is effected by depletion and abstinence and the gradual exchange of indolent for active habits. These are easy cases to deal with.

"Again, young persons are the subjects of it, but they are often pale and thin and dyspeptic and very sensitive, and inactive from mere debility and nervousness. In them the excessive action of the heart cannot be ascribed precisely to any one thing. The stomach and the nerves and the blood itself are all disordered, and they all are sources from which injurious influences may spring up and travel to the heart; and they all have probably their share in producing the simulated hypertrophy. Being so produced its cure can only be effected by varied methods of treatment and after a long time, and often not until the constitution has undergone some of those changes which belong to stated periods of life.—These are by no means easy cases to deal with.

"Again, young persons are the subjects of it, but they are often neither florid nor pale, neither too full nor too empty of blood. They have no complaint that they can tell you of, and none that you can make out, except an inordinate impulse of the heart; an impulse great enough for any amount of hypertrophy, and constantly present, and admitting of severe aggravation, and ever attended with pain, while the sounds of the heart are still loud and clear, and the præcordial region is still duly resonant."

We close our meager notice here although it is neither adequate to the merits of the author, nor a just measure of our appreciation of them. We commend the book most heartily to our readers, as one of high value, and not less pleasing than valuable.

BIBLIOGRAPHICAL NOTICES.

ART. V.—*Encyclopædia Americana: Supplementary Volume. A Popular Dictionary of Arts, Sciences, Literature, History, Politics and Biography.* Vol. XIV. Edited by HENRY VETHAKE, LL.D., Vice-Provost and Professor of Mathematics in the University of Pennsylvania; Member of the American Philosophical Society; Author of a Treatise on Political Economy, etc. 8vo. pp. 663. Philadelphia: Lea and Blanchard: 1847.

The Encyclopœdia Americana, published a number of years since, is so well known and so highly approved, that no higher recommendation of the supplementary volume is needed than to say, that it is worthy of a place by the side of its compeers. Every one who possesses the original work will be desirous of procuring the supplement, in which he will find a large and varied fund of useful information on biography, politics, history, literature and science.

ART. VI.—*Philosophy in Sport Made Science in Earnest;* being an attempt to Illustrate the First Principles of Natural Philosophy by the aid of the Popular Toys of Youth. From the sixth and greatly improved London edition. 12mo. pp. 432. Philadelphia: Lea and Blanchard: 1847.

The title of this little book is attractive, and its external appearance is fully as much so; the publishers have sent it forth in a beautiful dress. Philosophy ought to be made pleasing to youth, for in itself we hold with Milton, that it is "not harsh and crabbed as dull fools suppose." The mind naturally craves knowledge, and the youthful mind is especially inquisitive and

active. It must therefore be the fault of the systems in vogue, that learning is felt to be an oppressive task, instead of an ever recurring, exhaustless pleasure. How far the author of this enterprise has succeeded in making philosophy a pastime for youth, we are not able to say from any thorough examination of his book, but it is much in its favor that it has passed through so many editions. Any scheme which promises an alleviation of human suffering, such as that endured by children at school, we hold to be worthy the consideration of every philanthropist, and such is the aim of the anonymous little volume before us.

ART. VII.—*A System of Human Anatomy, General and Special.* By ERASMUS WILSON, M.D., Lecturer on Anatomy in London. Third American from the third London edition. Edited by PAUL B. GODDARD, A.M., M.D., Professor of Anatomy in the Franklin Medical College of Philadelphia. With 233 Illustrations by Gilbert. 8vo. pp. 610. Philadelphia: Lea and Blanchard: 1847.

This beautiful work, it will be seen from the title-page, has already reached the third edition in this country, although it is but a little while since the first was issued. It needs no commendation from the press; its character is established.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Inhalation of Ether. French Academy of Sciences.—At a late meeting of the Academy of Sciences several communications were made relative to the effects of the inhalation of ether and some discussion ensued, in the course of which M. Majendie repeated his opinion that this new method of operating ought to be practised with the greatest possible caution and reserve. M. Majendie brought forward some further arguments in defence of his opinion, but they throw no new light upon the question. We shall proceed, therefore, to give an account of some experiments on the new method which were this day communicated to the Academy. M. Flourens stated that he had made experiments to ascertain the effect of the ether upon the spinal marrow. In the first place he caused the ether to be inhaled by a dog, which in a few minutes became perfectly insensible. He then laid bare the spinal marrow at a point of the dorsal region, and during the whole of this cruel operation the animal gave no sign of pain. He then divided the nerves of sensation, and still no pain was manifested. Lastly, he pricked, cut, and tore the spinal marrow itself, and the dog did not give the slightest symptom of suffering, and experienced no convulsion. His next experiment was on a fowl, and with the same results. When the effects of ether were dissipated, the spinal marrow resumed all its vitality. M. Serres announced that he had made several experiments upon animals, but with liquid ether, as he was desirous of ascertaining its effects upon the nervous system. He had laid bare the nerves of the thighs of several rabbits, and placed them in contact with a sponge dipped in ether. The results were as follow:—Sensibility

was abolished in the nerve subjected to the action of ether at the points immediately in contact with it, and in all the radiations emerging from the nerve under that point; but the entire sense of feeling remained in the portion of the nerve above the point immerged in the ether. In order to take into account the action of the air, the following comparative experiment was made. Of two nerves which were laid bare, one was immerged in the ether, and the other was exposed simply to the action of the air. Five minutes afterwards the first was dead to all sensation, even on the application of pincers, the second retained all its sensibility and powers of contraction. Having thus ascertained the sedative power of the ether, M. Serres resolved to discover whether the sensibility could be restored by the immediate application of strychnine to the nerve which had been deprived of it. He applied the tincture of nux-vomica, strychnine, and the chlohydrate of strychnine, and all without effect. They produced neither sensibility to pain, nor restored the power of contraction.

A paper was read, giving an interesting account of some experiments made by M. Gruby, to ascertain the effects of ether on several animals, viz: 10 dogs, 4 rabbits, 2 mice, and 50 frogs. To intoxicate these animals required different periods of time, which are shown in the following table:—

	Minimum.	*Maximum.*	*Duration.*
Frogs	8 m.	35 m.	20 to 25 m.
Dogs	50	40	12 to 30
Mice	2	4	4 to 8
Rabbits	2	8	6 to 12

In general, says M. Gruby, the duration of the intoxication appeared to depend on the intensity of the vapor, the prolongation of the aspiration, the rapidity and force of the inspiration, and the age of the animals. Beyond the term above fixed for respiration the animals died in a sleep. In young animals the phenomena were more prompt than in those which were full grown. M. Gruby found that the peripheric circulation, the pulsation of the heart, and the respiration diminish under the influence of the ethereal vapor, and that, if after the experiment the animal be exposed to the air, the number of pulsations of the heart and the inspiratory motion augment considerably, as does also the cutaneous circulation. Frogs which were wounded immediately before the experiment resisted the intoxicating efforts of the ether much longer than those which were uninjured. He ascer-

tained also that the stagnation in the capillary vessels produced by the ether disappears before sensibility is again manifested, and that a frog deprived of its brain, and exposed to the vapors of ether, retains its sensibility and its powers of contraction much longer than one that has not been wounded. The experiments on dogs showed that they first lose their tactile peripheric sensibility, then voluntary motion, and finally the contractibility of the voluntary muscles. Dogs twenty days old lost their sensibility in three minutes, and died in eighteen to twenty minutes, under the effects of the ether; grown-up dogs lost their power of sensation in eight minutes, and died if the action of the ether was continued for forty-five minutes. The dogs recovered their sensibility and motion when they were exposed to the air, if the experiment with the ether was not prolonged beyond eighteen minutes for the young, and forty to forty-four minutes for adults. Young dogs which were apparently dead, having ceased to breathe, were brought to life by copious bleeding from the jugular vein. A young dog, which had already been under the effect of the ether and had recovered, was again exposed to it, and the same effect was produced in fifty seconds; but a dog which had been bled after the experiment, and was again exposed to the ether, resisted much longer than another dog which had not lost blood. In the cases where the experiment was carried to such a point as to produce death, M. Gruby found that the immediate cause of death was an accumulation of blood in the veins of the brain, those of the lungs, the liver, &c.

Several letters were received from surgeons giving account of successful operations, without pain, after the inhalation of ether.

A letter was received from M. E. Cotterau, informing the Academy that he has succeeded in producing an explosive powder from starch, by adopting nearly the same process as with cotton. This, however, was already known to chemists.—*Paris Press. D. W. Y.*

Treatment of Aphthæ.—Professor Lippich, of Padua, uses with advantage the following application in the treatment of aphthæ: Honey, 15 parts; sulphuric acid, 1 part (by weight). The mixture is applied by means of a camel's hair brush to the aphthous ulcerations.—*Gaz. Méd.—Ranking's Abstract.*

Observations on Croup—A paper read before the Fellows of the College of Physicians and Surgeons, by ALEXANDER H. STEPHENS, M. D., President of the College.

The frequent occurrence of croup, and its not unfrequent fatality in the northern and maritime regions, especially those of the United States, render important every addition to our knowledge of the nature and treatment of this formidable disease.

Up to the time of Dr. Bayley, of New York, no modern writer appears to have entertained correct pathological notions of this malady. It had previously been confounded with anginose affections of the fauces. It was, however, known to Hippocrates, who describes it in these remarkable words: "Ab angina homo suffocatur, oculi affecti sunt, ac velut strangulatis prominent; facies et fauces incenduntur, imo etiam collum intumescitur, vero nihil mali habere videtur."

We owe to the late Dr. Hosack of this city, the best description of the various stages of croup, and probably the best practical directions for the treatment of it. Yet, there are important points both of pathology and practice which he leaves wholly untouched, and others in which, if I am not mistaken, he is inaccurate.

It is usual among the medical men of this city, to speak of genuine croup, meaning that in which a membrane is formed in the trachea, and of spasmodic croup, many of them believing that inflammation either does not exist at all in the latter species, or that it is not the prior or primary morbid condition. These views I hold to be erroneous, and if carried out in practice, highly dangerous.

Professor Ware, of Boston, (the most recent writer on croup,) has recently presented another view on the subject, in a well reasoned paper, wherein he records numerous cases and dissections, showing how little that it is truly valuable to the American physicians in relation to croup, is to be found in European publications, more especially among the continental writers, or rather, how far they fall short in establishing those rules of practice by which alone, the American physician can successfully contend with the formidable malady. I am led to infer that it may present itself under different aspects in different regions. Be this as it may, the division of croup, proposed by Professor Ware, into four species, viz: catarrhal, membranous, inflammatory, and spas-

modic, does not accord with my own experience, or with that of the most sagacious and experienced practitioners in this city, with whom I have conversed on the subject.

The forms under which croup has presented itself to my observation in this city, during a period of more than thirty years, are the following:

1. A child with coryza and occasional cough of the ordinary character, as in bronchitis, is playing about without sore throat, or redness of the fauces, or glandular swelling. He appears more than usually animated, his countenance, especially his eye, is unusually bright, and his mind exhilarated. His skin at this time is not heated during the day, but rather harsh to the feel and dryer than natural. To an acute observer with a nice ear, his voice will be a little sharper than usual, and if he cries for a time, the peculiar inspiration will excite alarm. On the second or third night the attack of croup commonly comes on after a few hours sleep, the symptoms being a ringing cough, hoarse inspiration, and great roughness of voice. If the patient dies, a membranous formation is found in the trachea, and more or less in the bronchial tubes. This is what all admit to be genuine inflammatory croup.

2. Without any noticeable illness whatever, a child suddenly wakes up in the night with spasmodic suffocating cough of the peculiar croupy sound, the same inspiration as in the former case, and the same hoarseness of voice. A drink of some kind is given; the next cough is less sonorous, but the croupy symptoms as before described remain. The case is usually relieved by an emetic and some stimulating application to the throat, both of which are kept for that purpose in almost every well regulated family in the city, where there are many children under eight years of age. If not so relieved, the patient may die within twenty-four hours or less, or after a lapse of two or three days, or even a week. Where the disease terminates quickly in death no well formed false membrane is seen, but only mucus in the trachea more or less thick, and redness about the glottis. This is the form to which the term spasmodic croup has been given. Spasm of what? Of the glottis undoubtedly, and from what cause? From the presence of vitiated secretions, and undigested decomposed food in the stomach, it is answered, and how does this act? By sympathy? Now, this cannot either be proved or even rendered probable. It is true, when the stomach empties itself by vomiting, the symptoms, for a time at least,

and often permanently are relieved, but vomiting does more than unload the stomach. It relaxes the system, reduces the action of the heart, determines the fluids to the skin, which possesses so remarkable an antagonism to the mucous surfaces —above all it induces a copious secretion from the fauces, and thereby unloads the congested vessels of the glottis. It is admitted that an acid state of the stomach often causes irritation in the pharynx, which thence extends to the posterior part of the upper portion of the larynx. In adults this is beyond all doubt, and in children it is every way probable. Is the impression of these acrid matters, eructated, from the stomach or secreted in the pharynx, under particular circumstances, upon the larynx the cause of the sudden occurrence of croup? It would be difficult absolutely to disprove these propositions. In my mind they are not improbable, but on the other hand, admitting the connexion between disordered stomach and croup established as it is by the most extended observation, may it not be attributable in part, at least, to the fact that continued coldness of the surface is precisely the condition which fits the system, as well in childhood as in age, for the action of cold and moisture in producing inflammatory diseases?

But, setting aside these considerations, and under any view of the subject, what is the morbid condition of the glottis which gives rise to the croupy symptoms? If from cold it is inflammation, if from acrid secretions acting for more than a few minutes, it is and can be nothing else. There is, therefore, no spasmodic croup, if by spasm it is intended to exclude inflammation as a cause of that spasm.

But I am asked again how are the two kinds of croup above described to be explained pathologically. The answer to this query will appear in the classification of the forms of croup now proposed.

Under the term croup, properly so called, are included two affections, which may exist either separately or together.

1. The cynanche trachealis or trachitis, in which membranous exudation is more or less formed in the trachea before any affection of the larynx, and more especially of the glottis, takes place.

2. The cynanche laryngea or laryngitis or glottitis, in which the laryngeal or spasmodic symptoms occur first or exteriorly.

3. Between these two there are varieties of combination, and these constitute the great majority of the cases met with

in actual practice. In the most pure case of the so called spasmodic croup, no practitioner can say beforehand that no fatal inflammation of the glottis will occur, or that no obstruction of the trachea by false membrane or solid mucus is to be apprehended.

Is the disease croup a specific disease? Is there any peculiarity in the inflammation which gives rise to that secretion in the trachea? Let us look to anatomy and physiology, and the observation of disease, and to dissections for answers to this question.

In the first place, between the most firm tubular form of false membrane, and inspissated mucus, and mucus of an ordinary consistence, we see in dissection of croup every grade and variety. If specific, its character should be more marked.

When a child attempts to swallow hot water, the membranous exudation is produced in the posterior fauces and upper part of the larynx. Here then is an ordinary cause of inflammation producing what some consider a peculiar and specific secretion.

This question has a bearing upon practice, because it is contended by some that the specific effect of mercury is the proper remedy for this specific secretion.

It remains for those who deny the specific character of the tracheal secretion to account for its existence there, rather than in the larynx and trachea. In the larynx it is more rarely met with, in the trachea it gradually becomes less tenacious, and more resembles ordinary inspissated mucus. May it not be merely inspissated mucus in all cases? mucus inspissated by rapid disiccation? If a portion of mucus is left in the trachea, the increased rapidity of respiration, and the narrow calibre of the tube, must necessarily remove its watery particles in a doubly augmented ratio; less so in the trachea, because the same volume of air in proportion to surface does not pass by, and the air also is more charged with the moisture in its previous passage through the trachea—less so in the larynx, because that tube is larger. Rarely is the membrane seen upon the glottis, because death arises from spasm ere it has time to form on that irritable part. Rarely in adults, because in them the trachea is double the size it is even in advanced childhood, and because they exert a stronger volition to detach by hawking the first tenacious mucus that is adherent to the trachea.

The surface of the trachea is very unirritable. Where foreign bodies enter by accident, as when a tube is forced

into it by an artificial opening, no coughing is induced unless by its rising up the glottis is touched. A small foreign body has been known to remain for years, quietly lodged in one of the ventricles of the larynx. The trachea and the comparatively unirritable parts, are those in which inflammation may be going on for a considerable length of time, without exciting any very marked symptoms. This consitutes the true explanation of the two modes of invasion in croup.

Besides these three forms of idopathic, primary, or true croup, the laryngeal, the tracheal, and the mixed—there are forms of secondary croup, such as occur in measles, scarlet fever, and more especially in the malignant ulcerated sore throat, the diphtherite of Bretonneau. This last occasionally occurs sporadically with us, and is, I apprehend, very generally the disease which, under the term croup, carries off in quick succession two or more children in the same family. I have treated it successfully with calomel and opium, followed by wine whey, in conjunction with nitrate of silver to the throat—but my experience is too limited for me to assume to instruct others in regard to its nature and treatment. The French writers do not appear to discriminate between this affection and croup, as known here and in great Britain.

Before speaking of the proper medical treatment, I will say a few words on a point of Hygiene.

1st. What is the best method of bringing up children, with a view to their exemption from this disease?

Two systems are adopted for this purpose—one is to allow free exposure and exercise in the open air, except in the very worst weather. The children being well guarded with warm clothing, are not suffered to cease their exercise until they re-enter the house. The second is to confine them within doors, during the whole of the winter, and the early part of the spring. My observation leads me to think that although the first plan, if it is followed with great care, is the best, yet the second is more easily pursued, and upon the whole is the safest.

2d. Under what circumstances should especial precautions be taken, with a view to ward off the attack?

A child between the ages of two and five years with catarrh and cough, however slight and unfrequent, is a fit subject for croup, and if that disease is prevailing at the time, an attack after any exposure to cold and moisture, or any excess in eating, is always probable. The child should be confined to the house and dieted.

The treatment of croup should be prompt and decided, for if left to itself, the disease would probably in general prove fatal. But although prompt and decided treatment is necessary, it does not follow that heroic treatment is always, or even generally required. But the existing symptoms must always be met by remedies adquate to subdue them. The great skill of an experienced practitioner is shown in determining what amount of active treatment is *essential* in any given case; how much is requisite to remove the threatening symptoms, and to induce a favorable change, and how soon he must recur to the more severe remedies, after the disease has been for a time meliorated.—*N. Y. Annalist.—Buffalo Medical Journal.*

Treatment of the Oxalate of Lime Deposits.—Although there can be little doubt that oxalic acid is generated in the urine by the putrefactive decomposition, and often occurs subsequent to secretion in a manner totally independent of disease, yet it is also certain that this decomposition frequently results from an essential vice of secretion. The morbid conditions which give rise to this change are not yet known; but one thing is well ascertained, that in every instance of the kind there is frequent desire to pass water, pain in passing it, and that the secretion is commonly loaded with epithelium. These phenomena proclaim the existence of irritation of the mucous membrane. Sometimes the crystals of oxalate of lime, like those of uric acid, cohere in the calyces and infundibula, forming calculi, which produce paroxysms of nephritic colic by their descent into the bladder. In such cases inflammation of the lining membrane may be mechanically produced; but it is doubtful whether the symptoms of mucous irritation which usually accompany the oxalate of lime deposit are due to the irritating contact of the sharp crystals. Whatever is the cause of the mucous irritation, it constitutes the lesion which, in oxalate of lime diathesis, you are especially called on to remove; and its successful treatment requires no little delicacy in the application of therapeutical agents. Unlike acute mucous irritation, depletion and emollients will act in this irritation injuriously, if employed in the first instance; you must have recourse to tonics immediately, such as the mineral acids, vegetable bitter astringents, &c.; and having employed those means for some time, you will then find the greatest benefit from alkalies largely diluted.

It will be often necessary to alternate these methods of treatment for a considerable period, but you will generally find that ultimate benefit will be derived from steady persistence in their use. The form of tonic mixture which I usually employ in these cases, is the following:

℞. Infusi cascarillæ, ℥vj.
Nitratis potassæ, ℥j.
Acidi nitrici diluti, ℥iss.
Tincturæ opii, ℥j.
M. Sumat cochlearia quo ampla ter in die.
Ranking's Abstract.

Deglutition excited by dashing Cold Water on the Face.—The following suggestion by Mr. Simpson of Stamford, founded upon the invaluable principles of the excito motory system is worthy of more general application in cases in which the power of voluntary deglutition is lost. The suggestion is well illustrated in the subjoined case.

A poor man, who had attempted suicide, was sinking from the effects of loss of blood; his pulse was imperceptible, and the action of the heart could scarcely be felt. It being desirable to administer stimulants, his mouth was filled with spirits and water, but the patient was unconscious, and therefore did not swallow. Cold water was dashed upon his face for the purpose of making him swallow by exciting reflex action, when the contents of the mouth were instantly gulped down.—*Lon. Lancet.*—*Ibid.*

On the Causes of Baldness.—Mr. Cattell, in a paper entitled "Practical remarks on Diseases of the Hair," thus speaks of baldness:

Baldness, in relation to its causes, may be thus distinguished—

First, where it occurs in the vigor of life.

Secondly, where it exists in the decline of life.

In baldness taking place during the vigor of life, we find two opposite conditions of the skin—morbid constriction, and morbid relaxation.

1. Epidermical constriction.

This state of the skin may arise from the powerful influence of the passions, cold, febrile affections, &c.

And it may produce baldness in one of two ways—either by partially strangulating the hairs, and thus preventing the rise of their coloring elements, constituting absolute discoloration; or by causing the hairs to break off on their exit from the skin, leaving behind only the roots of the hairs, but so far hidden and confined below the skin as to constitute baldness.

Such being the one of the immediate causes of baldness, it may, further, be pronounced temporary or permanent.

The duration of baldness resulting from epidermical constriction will be correspondent to the facility or difficulty with which a removal of this state of the skin is accomplished.

Baldness may be only temporary, when the orifices of the hair-pores are closed by dry scales and cells, which frequently collect at their aperture, the hair growing, notwithstanding its inability to escape.

Baldness must be considered permanent when, subsequently to the removal of the epidermical constriction, there exists that condition of the roots of the bulbs, which we shall notice under the head of senile baldness.

The prognosis of baldness is regarded favorable, when the scalp, by friction with the hand, portrays an immediate redness; unfavorable, when the contrary.

2. Epidermical relaxation.

During the continuance of this condition of the skin, the hair not only falls off, but comes out in considerable quantities whenever it is combed or brushed.

Epidermical relaxation, then, becomes a cause of baldness, by permitting an enlargement of the perspiratory pores, and too abundant perspiration; for it is a remarkable fact in persons suffering from the loss of hair through relaxation of the skin, that they perspire on the least exertion or exposure to the heat.

Epidermical relaxation operates, moreover, as a cause of baldness, by destroying the firm interlacement which exists between the roots of the hairs and skin.

That the existence of the hair cannot be permanent, when only held in the skin by its roots, will be evident, if we examine a hair pulled out by its root—in which case, it will be found soft and pulpy in structure. Besides, we must annex the opinion, advanced by many anatomists, that the roots of the hair are fixed in the rete mucosum, or fat, immediately beneath the outer skin.

Associating, then, the existence of epidermical relaxation

with the fact that the hairs owe their chief stability to a healthy firmness and condition of the outer skin, it is not in the least surprising that they should be loosened, come out, and leave the patient bald.

Secondly, where it exists in the decline of life.

Baldness in the decline of life does not arise from the two previously mentioned causes, but from a decay of the roots or the bulbs of the hairs.

And it must be observed, that baldness is not an isolated effect of the lapse of years, but a general one, which supervenes in consequence of the obliteration and loss of function that occur in almost all the exterior vessels of the system.

In observing the order of changes giving rise to baldness in aged persons, we may notice,—1st, deficient supply of the colorizing elements of the hair; 2d, death of the internal pulp, the external part only remaining; 3d, after discoloration of the hair has occurred, the small bag which contained the root is gradually obliterated, and finally disappears.—*Lon. Lancet.—Ibid.*

Ergot of Rye in After-Pains.—Dr. Beatty observes that he has found the ergot most useful in preventing, or greatly moderating the severity of after-pains. He has seen a patient who was writhing from pain, which opium had not the power of controlling, speedily relieved by the ergot. He exhibits it for this purpose in the same manner as when his object is to restrain hemorrhage. He thinks that it acts by causing perfect contraction of the fibres of the uterus, and keeping them in this condition, and also by preventing the formation of clots in the interior of the uterus, by whose presence the spasmodic action is excited and kept up.—*Dub. Quart. Jour.—Ibid.*

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Nevertheless, by auscultation we shall find either the crepitous râle, or, if the disease is more advanced, bronchial respiration and bronchophony; we must, therefore, in doubtful cases, have immediate recourse to the stethoscope, if we would recognize the disease at its commencement. But there are certain cases, of which the present is an example, in which the greatest attention to the physical condition of the chest fails to detect any abnormal sound: in these cases it is probable that the pneumonia is central, and will only be recognized as the inflammation extends to the surface.

In some instances the invasion of pneumonia is announced by a sudden increase of prostration, with an alteration in the features expressive of anxiety, and emaciation. However full the pulse may have previously been, it becomes small and thready. There is also occasionally quiet delirium, or a state of adynamic somnolence, which shows itself suddenly during the progress of the fever. This is the form of pneumonia to which authors have applied the term *latent*, but the term is in truth misapplied; for though certain symptoms are absent, the auscultatory sounds are in most cases as marked as in the ordinary idiopathic disease. What we have said in reference to the pain applies also to all those symptoms for the manifestation of which a certain amount of sensibility and vital power is necessary. The cough and expectoration, for example, are less marked in patients who are delirious or extremely exhausted, and the physician is in such cases deprived of all valuable diagnostic signs.

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occurring during convalescence often misleads the practitioner, for he has difficulty in determining whether it is caused by some source of irritation still remaining, or whether it is the consequence of simple atony of the intestinal canal. In these cases it may be stated as a general rule, that the diarrhœa of convalescence is connected with defective tonicity, which will be yet further diminished by abstinence and local depletion.

The following indications form the basis of a judicious convalescent regimen:

1. To allow only as much food as the stomach can digest.
2. To advise the patient to eat little and often.
3. To submit the food to effectual mastication.
4. To keep the general surface, and especially the extremities, warm during digestion.
5. To adapt the food to the peculiar sympathies of the stomach.
6. To introduce a judicious variety in the diet.
7. To advise change of air.
8. To avoid vivid moral emotions.

It is certain, notwithstanding, that however properly the above injunctions be carried out, the recovery may be impeded by various accidents. Only two of these are alluded to by M. Parise, and that because of their frequency, viz: *diarrhœa* and *gastro-enteralgia*. When the first of these is present we must endeavor to ascertain whether it is produced by errors of diet or by some moral cause. Is there any inflammation, or does it depend upon simple atony of fibre? Even when symptoms believed to be inflammatory are present, we must still be very cautious in recommending abstinence and leeching, which may produce a degree of exhaustion and loss of contractility of parts, which may take years for its reparation. Diminution of food will, however, be required, as well as counter-irritation, in the form of dry cupping, or sinapisms to the abdomen. When the irritation has subsided, mild tonics and an improved diet are indicated. In passive diarrhœa, M. Parise speaks of the *theriacum* (a miscellaneous compound containing opium) combined with calumba.

Gastralgia, or *enteralgia*, is far more frequent after severe disease, especially when the alimentary canal has been effected, than is generally believed. The irregularity forms one of its most dirtinguishing features. The acute feeling of hunger suddenly changes into a state of insupportable languor. In this state a superabundant nourishment is injurious,

but in a far less degree than a too scanty one. Abstinence cannot be borne, nor do the epigastric pain and sinking cease until a certain quantity of food has been swallowed; while, if its administration be too long delayed, digestion does not take place, and diarrhœa is apt to ensue. First among medicines adapted to this state is bismuth alone, or with opium and calumba. Blisters and sinapisms to the epigastrium are also beneficial, as is also the endermic use of morphia.

Whatever means we have recourse to for the restoration of the energy of the alimentary canal, their prolonged employment is necessary. "Perseverance and variety," says M. Parise, "must never be lost sight of in a troublesome convalescence, during which health and disease are constantly vibrating."—*Medico-Chirurg. Rev.*—*Ibid.*

On the Treatment of After-Pains. By Edward Rigby, M. D., Senior Physician to the General Lying-in Hospital, &c., &c.—We find these pains after most labors, but they vary much, both in duration and severity. They are always most severe in women who have borne many children, and in some multiparæ they continue from 24 hours to three days. These pains, in common with those of labor, depend on contraction of the uterus; and these contractions are kept up after labor, by the presence of the lochia, or of coagula of blood, or of shreds of membrane in the cavity of the uterus. The after-pains, therefore, you will easily understand, are essential to the duty of this organ. After-pains are not usually felt in primiparæ. In multiparæ, when the woman is quite healthy, they seldom continue very long. When very severe, and of very long continuance, they may be considered as indicating the presence of inflammation, or, at all events, of a state bordering on inflammation. The pain no longer comes and goes in distinct intermissions, and it gradually becomes constant; the uterus, too, becomes tender on pressure, and the other symptoms of inflammation are established, but we shall have to consider this subject hereafter, when speaking of puerperal fever. It must, however, be borne in mind, that long-continued and severe after-pains may form an insidious transition to a state of inflammation.

The treatment pursued during the last few days of pregnancy has great influence in modifying the after-pains. If

the woman be allowed to go, even up to the period of her labor, with her bowels confined and loaded with unhealthy fæces, and with the secretions of the primæ viæ disordered, the uterus seldom contracts well during labor, and, under these circumstances, after-pains are sometimes very severe. The too rapid expulsion of the placenta, and the hasty conclusion of the last stage of labor, so that the uterus does not contract fully and firmly, are also causes of the contractions which cause these after-pains; and, in these cases, the after-pains are useful in expelling the clots and lochia, which, if allowed to remain, would become putrid, and thus prove a source of irritation, and, perhaps, give rise to puerperal fever. When the practitioner neglects to apply the child to the breast as soon as labor is concluded, the uterus does not contract fully, as before mentioned; this, therefore, is another reason for early suckling. In speaking of the application of the child to the breast, it was omitted to mention the fact of nurses having a saying, that "the child brings after-pains." This occurs to a great extent, when the infant is not applied to the breast until the third day, and is, therefore another reason, if more were required, for its early application.

Although after-pains are commonly, no doubt, excited by the presence of coagula in the cavity of the uterus, still they may sometimes occur when no such coagula are to be found. On this subject Dr. Burton, of York, who published in 1751, has given some curious observations, which explain one cause of after-pains very satisfactorily. Dr. Burton says, "upon the expulsion of the child and the placenta, the orifices of the uterine sinuses must contract, and thus retain the grumous blood which is in them; hence the use and benefit of these after-pains, which by stimulating and compressing the vessels and muscular fibres, make them exert their force to squeeze out this grumous blood, which otherwise might remain there, and occasion inflammation, suppuration, &c., from all which, we find that these after-pains are necessary towards removing or preventing an inflammation of the womb; therefore, we must not be too forward in giving strong opiates, and other internal medicines, which may take them off whilst this grumous blood is lodged within those sinuses. I doubt not," continues Dr. Burton, "that those patients who die from the eighth to the fourteenth day, whose uterus has been inflamed with the symptoms above mentioned, have been injured by the too free use of opiates." The discharge, in these cases, contains little vermiform shreds, and these

shreds do not consist of portions of membrane which have been left behind, but they are the casts or moulds, as it were of the cavities of the bloodvessels, and are composed of their contents coagulated. Dr. Burton mentions a case to which he was called, in consequence of severe after-pains coming on some time after labor; in this case, having introduced his hand with some difficulty, he perceived several small membranous strings, as he then thought them, adhering to the uterus; but, he says, "I was soon undeceived, for, upon expanding my fingers, by which I stretched the womb a little, several of these came into my hand, which I drew out, and found what I had imagined to be membranes to be only oblong grumous blood, resembling fibres, like those that adhere to a spatula after stirring arterial blood in a basin for some time. I introduced my hand a second time," he continues, "and made the experiment again, but found none of these little clots within the cavity of the womb; yet, upon expanding my hand, several came out of the orifices again, which I could plainly perceive, and, after keeping my hand there a little while, I brought away all that were in the cavity of the uterus, and the patient's complaints immediately abated, and she recovered well from that moment." These little vermiform fibres are, therefore, the casts of the bloodvessels, the contents of which had coagulated, having been retained by the contraction of their orifices. By being careful not to hasten the last stage of labor, so as to give the uterus time to contract slowly, the uterine sinuses expel their contents, and the annoyance of after-pains is, in many cases altogether prevented.

It was formerly the practice always to administer a large dose of laudanum, to check these after-pains; and a most pernicious practice it was, but which happily has diminished considerably of late years. As much as forty minims of tincture of opium were administered as a rule in all cases by some accoucheurs. It is hardly necessary to point out the falsity of the reasoning on which this practice was founded. Opiates should never be given for the purpose of checking after-pains, unless they are very severe, or in some peculiar cases which will be hereafter considered. Should the patient, however, have been accustomed to an after-pain draught, as it is called, and seem to expect it, a little tincture or extract of hyoscyamus or of lettuce may be given her. A mild sedative may, however, in many cases be useful after labor, as when the system is in a state of irritability and restlessness, consequent on the fatigue and irritation of a

lengthened period of suffering; but in these cases a small dose of Dover's powder, or of the sedative solution of opium, will always prove sufficient. When after-pains continue very severe for some time after labor, the best plan of treatment will be to give the customary dose of castor oil a little earlier than usual; this will generally relieve the pains, on bringing a quantity of fecal matter. When the pains continue very severe, in spite of this treatment, the presence of inflammatory action may be suspected, and the treatment must be accordingly.—*Medical Times.—Ibid.*

Poisonous properties of the Sulphate of Quinine.—Doctor Baldwin, of Mongomery, Alabama, details in the last number of the *American Journal of the Medical Sciences*, several cases illustrative of the poisonous action of quinine under certain circumstances. One is as follows:

A man, about 30 years old, habits and constitution good has had a cold for five or six days. On the morning of the 25th October, 1843, was taken with a chill, the sensation of coldness continuing nearly all day with severe and acute pain in the right side, frequent cough and severe headache.

26th. Pulse 108, rather soft and moderately full; skin hot; cough frequent; expectoration scant and fluid, slightly tinged with blood; severe headache, and great turgidity of veins about forehead; tongue nearly natural; bowels rather costive; thirst; slight dullness on percussion over lower part of right lung, and nearly over the whole lung the natural respiratory murmur is replaced by an irregular undulatory sound, resembling somewhat that produced by the application of a 'sea-shell' to the ear. In the left lung the sounds are healthy. Eyes very much injected; slight delirium.—℞. Calomel grs.v; p. opii gr.¼, M. Repeat every third hour. Mucilaginous drinks.

Noon. Pulse 118; has taken three pills; expectoration of a reddish orange; otherwise same. ℞. Antim. tart. grs.ii; aq. pura ℥iv, M. ℥ss every hour. ℥iv of blood from frontal vein.

Vesp. Pulse 120, full and soft; respiration 36; dullness extending upwards; no sound present over dull part except a

slight friction sound, more audible during inspiration; over sonorous part of lung on applying stethoscope only the undulatory sound heard, respiratory murmur being absent; cough frequent and attended with great pain; expectoration same; tongue moist; collection of sordes on upper teeth; breath fœtid; quite delirious, talking incoherently, and is anxious to get up and leave the bed; complains much of head and side. Took four successive doses of medicine, but vomited up a large quantity of bile just before taking the last dose. ℞.—Continue antimonial every hour.

8 o'clock, P.M. Pulse 104; respiration 28; sweating very freely; says he feels easier, since he had a large, thin, yellow operation, about half an hour ago.

10 P.M. Sleeps apparently easy for a few minutes and then awakes and talks deliriously. Pulse 98, full and soft; respiration 26; tongue rather disposed to be dry on dorsum; skin moist; complains of sharp pains darting through head; side easier. ℞. Continue antimonial every third hour; quin. grs. xii at 11 o'clock, grs. viii at 2 o'clock, and grs. viii at 5 o'clock in the morning.

27th. Pulse 104, more firm; respiration 28; skin became dry at quarter after 10 o'clock last night, and so continues; continued to have short naps, between which he would be awake and delirious; had three thin dark evacuations—after the second he took fifteen drops tr. opii, same quantity after third. He missed one dose of quinine (8 grs.) last night; complains much of the same darting pains through head and side; took about 12 oz. blood, from which he experienced no immediate relief of pain; pulse softened a little under it, the frequency remaining the same; no nausea; a little deaf; suppressed cough. ℞. (Now 7 o'clock, take quin. grs.viii.) Antimonial mixture (¼gr.) every hour; tr. opii gtt. x after each evacuation.

Noon. Pulse 100, softer; respiration same; skin moist; one more evacuation; sleeps steadily now, except when he is awakened to take medicine. ℞. Continue same.

2 P.M. Asleep, and sleeps soundly nearly all the time except when awakened to take medicine; pulse 100, full; respiration 28; skin hot and dry; tongue moist and white; cough frequent; expectoration scant, opaque, and without blood; slightly deaf; nausea. ℞. Continue same.

Vesp. 5 P.M. Is scarcely at all delirious; forehead moist; thirst; complains much of weariness, emptiness and nausea; pulse 98; respiration 24; sleeps well; has been up several times, but no evacuation. ℞. Give quin. grs.viii; continue antimonial.

8 P.M. Pulse 98; respiration 26; otherwise same. ℞. Quin. grs.xxvi; calomel grs.xii; tart. emetic grs.iss; p. opii grs.i; M. In pls. No. xviii, div.; three every second hour. Continue antimonial, gum water, &c.

28th. Pulse 85; respiration 20; one evacuation; less dullness; expectoration easy and free, opaque and yellowish; tongue moist and white. ℞. Continue same, leaving tartar emetic out of pills, and instead ℞. antim. tart. grs.iii; water ℥iv. M. ℥ss every hour.

Noon. Pulse 98; respiration 26; skin hot; expectoration more difficult and scant; has just thrown up some bile; considerable nausea; an orange colored matter deposited on the teeth, at the junction between them and the gums. ℞. Continue same, omitting one dose of the antimonial solution.

3 P.M. Called to see him. He had a little while before been taken with a *jerking motion* of the whole body, which lasted several minutes, and immediately after his *vision was so imperfect* that he could scarcely distinguish anything.—When I arrived, whole surface hot; respiration irregular, from 11 to 20; pulse 100, full and rather firm; temporal veins turgid, and temporal arteries throbbing; *great restlessness*, anxiety, and alarm; thirst increased; tongue more dry, white and rough; *pupils dilated;* he dozes two or three minutes at a time, then starts up breathing more quickly and audibly; cough frequent and dry; respiratory murmur heard over greater extent of lung. The convulsive movements of body came on every ten or twelve minutes, sometimes apparently of whole body, at others confined to the arms; in the latter case, by grasping the arms with moderate firmness, or pressing them against the bed, the motions could be arrested immediately. He was not insensible during the convulsions, nor was there foaming at the mouth, but occasionally a staring and vacant look, and rolling up of the eyes. By half after 4 o'clock *he was completely blind.* On drawing (4½ o'clock) an ounce of blood, from a small orifice, it jetted out with force and was the color of arterial blood, and much buffed when cold. From 4½ o'clock till 6 o'clock he had but one slight convulsion. After taking 1 oz. of blood I thought the pulse softened, but regained its same character by the time I had tied the arm.

It is unnecessary to pursue the subsequent details of the case. The man recovered after a protracted and serious illness, and has regained a useful degree of vision. His vision began to improve about 24 hours after, though it is still impaired up to this time.

He thinks such accidents may be avoided by giving the medicine largely diluted:

When the stomach is in a condition to bear it, its absorption and activity can be greatly facilitated by *largely diluting* it with warm water. When dissolved and diluted in this way, even when given in what may be termed 'heroic doses,' provided the quantity to be taken is divided and given at intervals of one, two, or three hours, its deleterious effects may always be avoided *and the remedy persisted in with safety* in the absence of any manifestation of its influence, which we should never feel safe in doing when giving the 'insoluble di sulphate,' whether in the form of pills or powders; for, in the former case, we will always be advised of its unfavorable influence early enough for a timely withdrawal or modification of the dose. When given in this way, a given quantity seems to produce a greater effect and in a shorter time, than even a larger quantity when prescribed in either of the other forms.

This mode of giving quinine cannot be urged too strongly, for besides being a *saving* of a valuable and costly drug, and a preventive of its poisonous effects, it will be found of great assistance in prescribing generally. In cases requiring much delicacy and determination in their management, and where the propriety of the prescription is a matter of debate with the physician himself, and he wishes to be made sensible of the effect of the first dose of his remedy, in order to determine upon a continuance, it becomes a matter of great moment that the medicine should be administered in that form in which it will be most certainly and speedily appropriated by the system, and its operation made manifest to the physician.

Ether in the Passage of Gravel.—(Communicated by Dr. Ware, to the Boston Society of Medical Improvement.)—The inhalation of sulphuric ether was recently employed, in this city, for the relief of the pain attendant on the passage of a renal calculus through the ureter, in a case under the care of Drs. Homans and Ware. The patient, a gentleman of about 50 years of age, was convalescent from pleuro-pneumonia, having still some pain in the side, cough and bloody expectoration. About 7 o'clock in the evening, im-

mediately after an evacuation from the bowels, he was seized with intense pain, in a spot on the left side, midway between the umbilicus and the crest of the ileum. Elixir of opium in the course of an hour and a half, was given to the amount of 400 drops; several enemata were administered, and various local applications were made, with but slight alleviation, and the suffering was still of the most severe description.

At a quarter before nine, the ether was administered by Dr. Keep. The patient did not become at any time entirely insensible, but was very soon comparatively easy, and remained so as long as the influence of the remedy continued. As soon as the pain returned, he requested a repetition of the inhalation, and was again relieved. The pain still returned, from time to time, as the influence of the ether subsided, but was kept under by a renewal of the process until three o'clock in the morning, when the patient became so easy, that it was no longer necessary. During this period, of about six hours, there were thirty repetitions of the operation which were counted, besides several others which were not.

There was no subsequent return of the pain, and no inconvenience whatever was experienced. The pain in the side and bloody expectoration almost immediately ceased; and the patient states, that a pain to which he has been subject for many years, when lying on the left side, has left him since the inhalation.

The following practical inferences seem worthy of being noticed in connection with this case.

1. That a pain of this description, which is not relieved by large doses of opium, may be mitigated by inhalation of ether, without suspending that natural course of things by which its cause will be sooner or later removed. Hence this remedy may be applicable during the passage of a biliary calculus, in colic or other cases of spasm, and, perhaps in some cases of even natural labor.

2. That an individual may be kept under the continued influence of ether, for a long period of time with safety.

3. That the inhalation is not necessarily irritating to even diseased lungs, and the presence of considerable disease in them does not constitute an objection to its use, when circumstances demand it.

The practical bearing of these inferences is not affected by any doubts as to the accurcy of the diagnosis. Even were the medical attendants wrong in their judgment on this

point, which is very possible, it is not the less true that the patient was speedily and for a long time relieved of intense suffering, that the cause of the pain was during this time removed, and that no subsequent ill effects were the result. *Boston Medical Journal.*

Remedy for Toothache.—M. Cottereau recommends, for the alleviation of toothache, an ethereal solution of camphor, containing ammonia. Sulphuric ether is saturated in the cold with camphor, and two or three drops of ammonia are added. In this way an ammoniacal camphorated ether is obtained, which should be kept in a well-stopped bottle. This liquid acts as a cautery to carious teeth, and it immediately relieves toothache. M. Cottereau states that he has employed it for four years, and its application has always been attended with success. The rapid evaporation of the ether causes a slight deposit of the camphor in the dental cavity, and thus protects the nerve from the air. The ammonia has a cauterizing action.—*Lond. Med. Gaz.*

Bromide of Potassium as a substitute for the Iodide.—The low price of the bromide compared with that of the iodide of potassium has induced M. Ricord to substitute the former for the latter in the treatment of secondary syphilitic affections. The dose of the bromide is the same as of that of the iodide of potassium. It has produced the same therapeutical effects but more slowly.—*Journal de Pharmacie.*

THE WESTERN JOURNAL.

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LOUISVILLE, MAY 1, 1847.

PROFITS OF MEDICAL PRACTICE.

That *the laborer is worthy of his hire,* is a proposition which will meet with universal assent; that the medical practitioner is one of the worst paid laborers in the land, will also, we believe, generally be conceded. While other men may decline business which pays nothing, the physician must attend to every call; and whereas the lawyer demands his fee in advance, or a note making it secure, and the mechanic expects to be paid as soon as his work is done, the doctor's bill must wait until all others are paid. A young medical friend in the interior of this State told us a short time since, that for more than a year's pretty laborious practice he had received, in cash, about twenty dollars, and he declared that if he should present his bills to his employers they would send for another physician, and he would lose his practice. Now what has brought about such a state of things? Is it not the affair of *Dan and the soaring eagle,* in the Irish legend, over again? The eagle, according to the story, caught up the napping Irishman and bore him through the fields of air in triumph; but at length his pinions grew weary and he began to complain of his burden. "*My dear fellow, who axed you?*" was Paddy's pertinent reply.

It is from no inherent weakness in their claims upon the public that physicians must thus defer them. If the practitioners of every

neighborhood would agree to present their accounts at the end of the year, when all other bills are sent in, the people would soon come to feel that doctors' bills were really to be paid. We throw out this hint as one worthy of consideration. The evil complained of does not appear to us at all an incurable one, and therefore to be borne in silence. The remedy is in the hands of the practitioners themselves, and they should apply it, *tuto, cito, et jucunde.*

TRANSYLVANIA UNIVERSITY.

By the Catalogue of the Medical Department of Transylvania University, which we have just received, we learn that the number of students in attendance there during the last session was 205. Of these, it is stated in the catalogue, nine were M.D.'s, and twenty took only the chemical ticket. The number of graduates was sixty-eight, two of whom had previously taken the degree at other institutions. The honorary degree was conferred upon Dr. Samuel B. Field, of Kentucky; Dr. Wm. H. Wilson, of Illinois; Dr. Wm. T. Le Grand, of Mississippi; and Dr. D. M. Lipscomb, of the same State.

The Lexington Medical Society has offered a prize of fifty dollars or a gold medal, for the best thesis submitted for the degree of M.D., in Transylvania University, at the next session. The same Society offers a similar prize for the best account of Continued Fever, as it prevails in any of the States out of New England.

RESIGNATION OF PROFESSOR MOORHEAD.

Dr. Moorhead has resigned the Chair of Theory and Practice of Medicine, which he has held for many years in the Ohio Medical College.

HARVARD UNIVERSITY.

We announced in our last number the resignation by Professor John C. Warren of the Chair of Anatomy and Surgery in Harvard University. The board of trustees have paid him the compliment, richly merited, of electing him *Emeritus* Professor of Anatomy and

Surgery. We learn from the Boston Medical and Surgical Journal that they have appointed three new professors since the resignation of Dr. Warren, two of whom are to be attached to the Medical College in Boston, and one to the University of Cambridge. The new incumbents are—Oliver W. Holmes, M.D., Professor of Anatomy and Physiology; John B. S. Jackson, M.D., Professor of Pathological Anatomy, and Curator; and Jeffries Wyman, M.D., Hersey Professor of Anatomy at Cambridge. These gentlemen enjoy a high reputation for talents, industry, and learning.

TENNESSEE DELEGATES TO THE MEDICAL CONVENTION.

The Medical Society of Tennessee have appointed six delegates to the Medical Convention. The names of the delegates are Dr. Hays, of Columbia; Dr. Avent, of Murfreesborough; Drs. Stout, Martin, and Buchanan, of Nashville, and Dr. Nelson, of Davidson county.

RANKING'S HALF-YEARLY ABSTRACT.

We have received the second number of volume II of this valuable summary of Medical Science, and find that, so far from any falling off in its interest, the number before us is an improvement upon its predecessors. The publishers are Lindsay & Blakiston, Philadelphia, and they offer it to subscribers on terms so reasonable, ($1 50 per annum) that it is obliged to attain a most extended circulation. For this small sum, the subscriber will receive in the course of the year eight hundred closely printed pages of well digested matter, relating to all the branches of medical science.

WILLIAMSBURG (VA.) ASYLUM.

The annual report of the Eastern Asylum in the City of Williamsburg, Virginia, for 1846, presents a favorable view of the condition of that institution. During the year the inmates numbered one hundred and sixty. The number of discharges was thirteen, all of which, except one, were in the usual form of recoveries. Dr. Galt's report is an interesting document.

FACTS FROM CORRESPONDENTS.

CASE OF POISONING BY CAMPHOR.

By Dr. *E. O. Brown*, of Brandenburg, Kentucky.

The following case of convulsions, brought on by an over dose of camphor, will probably interest the readers of the Journal. It is the second case of the kind that has occurred within a short time in Brandenburg.

Mr. A., a stout, robust man, on the 27th January, 1847, bought an ounce of gum camphor, had it put up in paper as usual, placed it in his pocket, and went to church. While there he would frequently pinch off small pieces and chew and swallow them, not noticing the quantity taken. After church he, with his father and brother, left town for home. When they had proceeded about one mile on their way, the two brothers were riding together, when suddenly the one who had taken the camphor drew up his bridle as though he was going to stop his horse, threw himself back and fell to the ground. Upon going to his assistance they found that he was powerfully convulsed; in a short time a second and a third convulsion followed. A gentleman passing at the time who was in the habit of bleeding, bled him, conveyed him to the nearest house, placed him in a warm bath, and gave some medicine. He remained speechless, and perfectly unconscious of all that was going on for several hours. After some hours he gradually recovered his speech, but stated that he could not recollect any of the transactions of the evening on which the accident happened. He remained stupid, languid, and rather wandering all next day, but gradually recovered his former condition, and has enjoyed his health and spirits as usual since.

The foregoing history I derived from the father of the individual affected. The weight of the camphor sold by the druggist was as-

certained, and on weighing it again it appeared that it had lost *one hundred and ten grains*. It may be concluded, therefore, that the young man swallowed something like that amount of the substance.

April 6th, 1847.

ASAFŒTIDA A PREVENTIVE OF MEASLES.

Dr. Harper is not convinced by the arguments of Dr. Stahl, that asafœtida is not a preventive of measles. He writes us to say that his faith in the prophylactic is as great as ever, though he does not give any additional facts in support of his opinion.

POISONING BY CARBONIC ACID.

A short time since, two negro men in Tennessee fell asleep upon the stack of an iron furnace filled with charcoal, which had been two or three days burning. In four or five hours they were found in a state of insensibility, but a trough of cold water being at hand, they were plunged into it, and, in the course of fifteen or twenty hours, restored to their senses, a little aqua ammonia having in the mean time been administered.

In the same State, a few years ago, a man went into his well in August, the water having given out. He fell down almost immediately, and his wife, having given the alarm, descended to his relief. A black man who arrived in a minute or two saw them both lying insensible at the bottom of the well, and running down was himself soon overpowered. The white man was taken out as quickly as possible, but never breathed afterwards. His wife, who was next removed, survived seven days, but ultimately died with typhoid symptoms. The negro was about fifteen minutes in the well; he recovered, and is still alive, but was hemiplegic for ten months, and even now has not the full use of his left side.

April 22d, 1847.

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MEDICINE AND SURGERY.

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